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USPT	l1 and campylob\$	0	<a href="#">L2</a>
USPT	flge	10	<a href="#">L1</a>

**WEST**

Generate Collection

L17: Entry 45 of 50

File: USPT

Nov 19, 1991

DOCUMENT-IDENTIFIER: US 5066596 A

TITLE: Bacterial strains harboring cloned genes controlling *Vibrio cholerae* O-antigen biosynthesis

## BSPR:

A further aspect of this invention is that the stimulation of IgA production provides a means of measuring the immune response generated. Should the introduced genes code for a protective antigen of an invasive organism such as Campylobacter, Salmonellae or Shigella, the production of IgA antibodies directed against the introduced antigen will provide a means of measuring the generated immune response even though the IgA antibodies are not the important protective factor in these cases.

## BSPR:

Other advantages of bacterial strains, constructed according to this invention and used as the active ingredient in live, oral vaccines are that a single or limited number of doses will be effective, the vaccine strain will be well characterized genetically with no theoretical possibility of reversion to virulence, and the vaccine is suitable for use in both an active and passive immunization program as the IgA antibodies produced can be passed from mother to infant in colostrum and milk.

## DEPR:

It has been shown that vaccination of a sow with a purified K88 preparation can confer on her offspring passive immunity to a K88 *E. coli*. It could be concluded that antibodies to the K88 antigen in colostrum and milk protect the piglets by neutralization of the adhesive properties due to the K88 antigen. Thus, antibodies to the K88 adherence factor; the K88 pilus, will protect. Other adhesin type antigens designated, K99 987P, F41 have also been identified as important in piglet enteric colibacillosis. These, like the K88 adhesin could be used in the construction of a vaccine as demonstrated here fore K88 pilus antigen.

**WEST**

Generate Collection

L21: Entry 3 of 28

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6087105 A

TITLE: Gene encoding invasion protein of campylobacter species

## ABPL:

A protein associated with adherence and invasion of Campylobacter spp. including C. jejuni and C. coli is provided. Methods are disclosed for detecting Campylobacter spp. including C. jejuni and C. coli in a biological sample by determining the presence of the protein or a nucleic acid molecule encoding the protein in the sample. Compositions for treatment of infections diseases and vaccines are also described.

## DEPU:

Yao, R., D. H. Burr, P. Doig, T. J. Trust, H. Niu, and P. Guerry. 1994. Isolation of motile and non-motile insertional mutants of Campylobacter jejuni: the role of motility in adherence and invasion of eukaryotic cells. Mol. Microbiol. 14:883-893.

## CLPR:

1. A purified and isolated nucleic acid molecule encoding a protein associated with adherence and invasion of Campylobacter jejuni and having a nucleic acid sequence which comprises: (a) a nucleic acid sequence as shown in SEQ ID NO:1 wherein T can also be U; or (b) nucleic acid sequences complementary to (a).

## CLPR:

4. A method for preparing a Campylobacter invasion phenotype (CipA) protein associated with adherence and invasion of C. jejuni comprising culturing a host cell according to claim 3 under conditions which allow the expression of the protein and isolating the expressed protein.

**WEST**

Generate Collection

L23: Entry 3 of 9

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6087105 A

TITLE: Gene encoding invasion protein of campylobacter species

## BSPR:

The invention also relates to an antibody specific for one or more epitopes of a protein of the invention, preferably a monoclonal antibody and methods for preparing the antibodies. A method for detecting Campylobacter spp. as well as C. jejuni in a sample is provided comprising assaying for CipA protein in the sample. In an embodiment of the invention the method comprises contacting the sample with an antibody of the invention which is capable of being detected after it becomes bound to CipA in the sample, and measuring the amount of antibody bound to CipA in the sample, or unreacted antibody.

## BSPR:

A kit for detecting Campylobacter spp. as well as Campylobacter jejuni in a sample comprising an antibody of the invention, preferably a monoclonal antibody and directions for its use is also provided. The kit may also contain reagents which are required for binding of the antibody to a CipA protein in the sample.

## BSPR:

The substances identified using the method of the invention, antibodies, and antisense molecules may be used to reduce adherence and/or invasion of Campylobacter spp. including C. jejuni and accordingly may be used in the treatment of infectious diseases caused by Campylobacter spp. including C. jejuni. Accordingly, the substances may be formulated into pharmaceutical compositions for administration to subjects.


## DEPU:

Yao, R., D. H. Burr, P. Doig, T. J. Trust, H. Niu, and P. Guerry. 1994. Isolation of motile and non-motile insertional mutants of Campylobacter jejuni: the role of motility in adherence and invasion of eukaryotic cells. Mol. Microbiol. 14:883-893.

et Items Description  
 S1 279 CAMPYLOBACTER?/TI AND (NON-MOTILE OR NONMOTILE OR DEFICIEN-  
 T? OR FLAGELLALESS OR (FLAGELLA (N)LESS) OR FLAGELLA-LESS?)  
 S2 81 RD (unique items)  
 S3 11 S2/2000:2001  
 S4 70 S2 NOT S3  
 ?t s4/9/7 14 15 17 20 21 22 23 24 30 32 34 35 36 39 42 44 45 48 50 52 54 55 59

4/9/7 (Item 7 from file: 155)  
 DIALOG(R) File 155:MEDLINE(R)  
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09590380 97386399 PMID: 9244248

The flgE gene of Campylobacter coli is under the control of the  
 alternative sigma factor sigma54. 

Kinsella N; Guerry P; Cooney J; Trust TJ  
 Department of Biochemistry and Microbiology, University of Victoria,  
 British Columbia, Canada.

Journal of bacteriology (UNITED STATES) Aug 1997, 179 (15) p4647-53,  
 ISSN 0021-9193 Journal Code: HH3

Languages: ENGLISH  
 Document type: Journal Article  
 Record type: Completed  
 Subfile: INDEX MEDICUS

The flgE gene encoding the flagellar hook protein of Campylobacter coli  
 VC167-T1 was cloned by immunoscreening of a genomic library constructed in  
 lambdaZAP Express. The flgE DNA sequence was 2,553 bp in length and encoded  
 a protein with a deduced molecular mass of 90,639 Da. The sequence had  
 significant homology to the 5' and 3' sequences of the flgE genes of  
 Helicobacter pylori, Treponema phagedenis, and Salmonella typhimurium.  
 Primer extension analysis indicated that the VC167 flgE gene is controlled  
 by a sigma54 promoter. PCR analysis showed that the flgE gene size and the  
 5' and 3' DNA sequences were conserved among C. coli and C. jejuni strains.  
 Southern hybridization analyses confirmed that there is considerable  
 sequence identity among the hook genes of C. coli and C. jejuni but that  
 there are also regions within the genes which differ. Mutants of C. coli  
 defective in hook production were generated by allele replacement. These  
 mutants were nonmotile and lacked flagellar filaments. Analyses of flgE  
 mutants indicated that the carboxy terminus of FlgE is necessary for  
 assembly of the hook structure but not for secretion of FlgE and that,  
 unlike salmonellae, the lack of flgE expression does not result in  
 repression of flagellin expression.

Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.


Descriptors: \*Bacterial Proteins--genetics--GE; \*Campylobacter coli  
 --genetics--GE; \*DNA-Directed RNA Polymerase--physiology--PH; \*Flagella;  
 \*Gene Expression Regulation, Bacterial; \*Sigma Factor--physiology--PH;  
 Amino Acid Sequence; Base Sequence; Cloning, Molecular; DNA, Bacterial;  
 Flagellin; Genes, Bacterial; Molecular Sequence Data; Mutagenesis,  
 Site-Directed; Promoter Regions (Genetics); Rabbits; Sequence Homology,  
 Amino Acid

Molecular Sequence Databank No.: GENBANK/AF004221

CAS Registry No.: 0 (Bacterial Proteins); 0 (DNA, Bacterial); 0  
 (FlgE protein); 0 (Sigma Factor); 12777-81-0 (Flagellin); 135114-79-3  
 (RpoN protein)

Enzyme No.: EC 2.7.7.6 (DNA-Directed RNA Polymerase)

Record Date Created: 19971023

4/9/14 (Item 14 from file: 155)  
 DIALOG(R) File 155:MEDLINE(R)  
 (c) format only 2001 Dialog Corporation. All rts. reserv. 

08216953 94341897 PMID: 8063406

Differential flagellin expression in a flaA flaB+ mutant of  
 Campylobacter jejuni.

Wassenaar TM; Bleumink-Pluym NM; Newell DG; Nuijten PJ; van der Zeijst BA  
 Department of Bacteriology, School of Veterinary Medicine, University of

Utrecht, The Netherlands.

Infection and immunity (UNITED STATES) Sep 1994, 62 (9) p3901-6,  
ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Campylobacter jejuni 81116 has two genes coding for flagellin, flaA and flaB. Fully motile wild-type C. jejuni bacteria express the flaA gene, with no flaB message being detected. A nonmotile flaA flaB+ mutant, R1, produced detectable levels of flagellin B which was incorporated into truncated flagella. After R1 had invaded INT-407 cells, a variant with increased motility, R1-V2, was isolated. R1-V2 produced full-length flagella and an increased amount of flagellin B. Transcriptional analysis showed that R1-V2 contained more flaB mRNA than its parental strain, R1. The flaB gene promoter sequence and primer extension experiments confirmed that transcription of the flaB gene is initiated from a sigma 54 promoter. Neither the promoter sequence nor the coding sequence of flaB had changed in R1-V2. In contrast to R1, R1-V2 no longer produced (truncated) flaA mRNA. The sigma 28 flaA promoter sequence was not changed in R1-V2. We propose that expression of the two flagellin genes in C. jejuni 81116 is regulated at the transcriptional level, in such a way that predominantly one gene at a time is transcribed. We compared the levels of invasiveness of the wild-type strain, R1, and R1-V2 for INT-407 cells. The shift in expression from flaA to flaB occurred not only during invasion assays but also under different conditions in the absence of eukaryotic cells.

Tags: Support, Non-U.S. Gov't

Descriptors: \*Bacterial Proteins--genetics--GE; \*Campylobacter jejuni--genetics--GE; \*Flagellin--genetics--GE; \*Gene Expression Regulation, Bacterial; Base Sequence; Campylobacter jejuni--pathogenicity--PY; Flagellin--analysis--AN; Molecular Sequence Data; Mutation; Promoter Regions (Genetics); RNA, Messenger--analysis--AN

CAS Registry No.: 0 (Bacterial Proteins); 0 (RNA, Messenger); 12777-81-0 (Flagellin); 133606-66-3 (flaA protein); 140470-87-7 (flaB protein)

Record Date Created: 19940921

4/9/15 (Item 15 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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08216944 94341881 PMID: 8063393

Cell association and invasion of Caco-2 cells by Campylobacter jejuni.

Russell RG; Blake DC

Department of Pathology, School of Medicine, University of Maryland at Baltimore 21201.

Infection and immunity (UNITED STATES) Sep 1994, 62 (9) p3773-9,  
ISSN 0019-9567 Journal Code: GO7

Contract/Grant No.: RR03123, RR, NCRR

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Adherence and invasion studies were conducted in monolayers of Caco-2 cells. Three-day-old monolayers were inoculated with Campylobacter jejuni 81-176 at a bacterium/cell ratio of 1,000:1. Saturation studies demonstrated time- and dose-dependent saturation curves for C. jejuni cell association and invasion into Caco-2 cells. Electron microscopy revealed intracellular C. jejuni located within membrane-bound vacuoles. Cell association and invasion were inhibited by 0.3 and 0.5 M concentrations of various sugars, including D-glucose, D-mannose, and D-fucose. However, there was no inhibition with the corresponding L-sugars, indicating physiological specificity. The inhibition of cell association with phloridzin was less pronounced. There was no inhibition of bacterial entry with monodansylcadaverine or g-strophanthin, indicating that it was unlikely that coated-pit formation is important in the invasion of C.

#15  
jejuni into Caco-2 cells. Furthermore, there was no inhibition with cytochalasin D, vincristine, or vinblastine. Inhibition of cell association was demonstrated at 4 degrees C. Significantly decreased cell association and invasion were seen in potassium-depleted cells. Treatment of cells with bromelain also caused reduction in the number of C. jejuni binding to cells. A **nonmotile** aflagellate variant of C. jejuni also showed reduced invasion. The results of this study are consistent with energy-dependent invasion mechanisms. The results do not support an endocytic method of invasion for C. jejuni into Caco-2 cells.

Tags: Human; Support, U.S. Gov't, P.H.S.

Descriptors: \*Campylobacter jejuni--pathogenicity--PY; \*Colon  
--microbiology--MI; Chloramphenicol--pharmacology--PD; Phlorhizin--pharmacology--PD; Tumor Cells, Cultured; Vincristine--pharmacology--PD  
CAS Registry No.: 56-75-7 (Chloramphenicol); 57-22-7 (Vincristine); 60-81-1 (Phlorhizin)

Record Date Created: 19940921

4/9/17 (Item 17 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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08167732 94260712 PMID: 8201772

**The role of flagella of Campylobacter jejuni in colonization in the intestinal tract in mice and the cultured-cell infectivity]**

Yanagawa Y; Takahashi M; Itoh T

Tokyo Metropolitan Research Laboratory of Public Health.

Nippon saikingaku zasshi (JAPAN) Mar 1994, 49 (2) p395-403, ISSN 0021-4930 Journal Code: KHZ

Languages: JAPANESE

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

For analyzing the role of the bacterial flagella in colonization in the intestinal tract of mice and adhering to or invading the Intestine 407 cell, a nonflagellated, **nonmotile** mutant was induced by ultraviolet irradiation of a flagellated, motile wild-type strain of Campylobacter jejuni CF84-340. There was no great difference in the cellular infectivity to the Intestine 407 cells between the wild-type and the mutant strains. Cellular adherence and invasiveness were then compared by fluorescent antibody staining, and an obvious difference was found in the latter. While 21.4% of the organisms of the wild-type strain invaded the cells, only 6.1% of those of the flagella-defective mutant did so. In the experiments in mice involving oral administration, cellular invasiveness was not found with the flagella-defective mutant and no organisms were detected from the blood, although bacteremia is one of the characteristics of infection with C. jejuni. Moreover, no intestinal adherence of the mutant was detected, suggesting early elimination of the organism administered. These results indicate that the bacterial flagella are concerned in not only the cellular adherence and intestinal deposit, but also the intracellular invasiveness and invasion into the blood stream from the intestinal wall in the infected mice.

Tags: Animal; Human

Descriptors: \*Campylobacter jejuni--growth and development--GD; \*Flagella --physiology--PH; \*Intestines--microbiology--MI; Bacterial Adhesion; Campylobacter jejuni--physiology--PH; Cells, Cultured; Intestines--cytology --CY; Mice; Mutation

Record Date Created: 19940701

4/9/20 (Item 20 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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07882082 93239276 PMID: 8478066

**Role of flagella in adherence, internalization, and translocation of Campylobacter jejuni in nonpolarized and polarized epithelial cell**

on



**cultures.**

Grant CC; Konkell ME; Cieplak W; Tompkins LS  
Department of Microbiology and Immunology, Stanford University Medical  
Center, California 94305.

Infection and immunity (UNITED STATES) May 1993, 61 (5) p1764-71,  
ISSN 0019-9567 Journal Code: GO7

Contract/Grant No.: AI23796-07, AI, NIAID

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Previous studies of *Campylobacter jejuni* have suggested that flagellin is an adhesin for epithelial cells and that motility is a virulence factor of this bacterium. The role of flagella in the interactions of *C. jejuni* with nonpolarized and polarized epithelial cells was examined with flagellar mutants. Flagellated, **nonmotile** (flaA flaB+ Mot-) and nonflagellated, **nonmotile** (flaA flaB Mot-) mutants of *C. jejuni* were constructed by in vivo homologous recombination and gene replacement techniques. Both classes of mutants were found to adhere to cells of human epithelial origin (INT 407) equally well; however, on the basis of the percentage of the inoculum internalized, internalization of the flaA flaB Mot- mutants was decreased by factors ranging from approximately 30 to 40 compared with the parent. The flaA flaB+ Mot- mutant was internalized by the INT 407 cells at levels six- to sevenfold higher than the flaA flaB Mot- mutants. Both classes of mutants, unlike the parent, were unable to translocate across polarized Caco-2 monolayers. These results indicate that flagella are not involved in *C. jejuni* adherence to epithelial cells but that they do play a role in internalization. Furthermore, the results suggest that either the motility of *C. jejuni* or the product of flaA is essential for the bacterium to cross polarized epithelial cell monolayers.

Tags: In Vitro; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.

Descriptors: \*Bacterial Adhesion; \*Campylobacter jejuni--pathogenicity  
--PY; \*Flagellin--genetics--GE; \*Intestines--microbiology--MI; Base  
Sequence; Campylobacter jejuni--genetics--GE; Cell Polarity; Cells,  
Cultured; Cloning, Molecular; DNA Mutational Analysis; DNA, Bacterial  
--genetics--GE; Endocytosis; Epithelium--microbiology--MI; Flagellin  
--metabolism--ME; Molecular Sequence Data; Oligodeoxyribonucleotides  
--chemistry--CH; Restriction Mapping

CAS Registry No.: 0 (DNA, Bacterial); 0 (Oligodeoxyribonucleotides);  
12777-81-0 (Flagellin)

Gene Symbol: ist/GeneSymbol flaA

Record Date Created: 19930524

4/9/21 (Item 21 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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07727557 93342950 PMID: 1307436

**Colonization of infant mice with flagellar variants of Campylobacter jejuni.**

Diker KS; Hascelik G; Diker S

Department of Microbiology, Faculty of Veterinary Medicine, Ankara  
University, Turkey.

Acta microbiologica Hungarica (HUNGARY) 1992, 39 (2) p133-6, ISSN  
0231-4622 Journal Code: LAH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The role of flagella in the colonization of the intestine by *Campylobacter jejuni* was investigated by challenging infant mice with two flagellated strains and their nonflagellated variants. The intestinal tracts of infant mice were regularly colonized with motile strains, but not by **nonmotile** variants. Colonization of mice with motile *C. jejuni* occurred with as few as 1000 bacteria per mouse.

Tags: Animal

The campylobacters are now regarded as one of the principal causes of bacterial intestinal tract infections, with an incidence quite similar to those due to Salmonella. It is a mainly pediatric infection, which affects mostly boys (60%), the infant less than 1 year of age (25% of cases) and is usually sporadic. *C. jejuni* (75%) or *C. coli* (16%) are the most commonly involved; a higher incidence of septicemia is noted with the other more rarely isolated species. Clinical signs are mostly of digestive origin, represented principally by diarrhoea in almost all cases, associated to severe abdominal pain in the child and bloody stools especially in infants in half of cases. Infection is usually mild with a benign course lasting one week. Systemic infection or visceral involvement are rare, occurring mostly in neonates or immuno-deficient patients. *C. jejuni* can be responsible for Guillain-Barre Syndrome or hemolytic uremic syndrome. Macrolids, the most commonly used antibiotics, are rarely indicated.

#### MEDICAL DESCRIPTORS:

\*campylobacter coli; \*campylobacter jejuni; \*intestine infection  
--epidemiology--ep; \*intestine infection--diagnosis--di  
adolescent; age; antibiotic sensitivity; bacterium isolation; blood culture  
; child; clinical feature; conference paper; disease course; feces culture;  
human; immune deficiency; incidence; infant; sex difference

#### SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology  
007 Pediatrics and Pediatric Surgery  
048 Gastroenterology

4/9/50 (Item 6 from file: 73)

DIALOG(R) File 73:EMBASE

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02254854 EMBASE No: 1982048015

**Wolinella gen. nov., Wolinella succinogenes (Vibrio succinogenes Wolin et al.) comb. nov., and description of Bacteroides gracilis sp. nov., Wolinella recta sp. nov., Campylobacter concisus sp. nov., and Eikenella corrodens from humans with periodontal disease**

Tanner A.C.; Badger S.; Lai C.H.; et al.

Forsyth Dent. Cent., Boston, MA 02115 United States

International Journal of Systematic Bacteriology ( INT. J. SYST. BACTERIOL. ) (United States) 1981, 31/4 (432-445)

CODEN: IJSBA

DOCUMENT TYPE: Journal

LANGUAGE: ENGLISH

The authors compared 46 strains of gram-negative, asaccharolytic, rod-shaped bacteria which were isolated from humans with gingivitis, periodontal pockets, and lesions in alveolar bone with 10 reference strains of *Eikenella corrodens*, *Vibrio succinogenes*, *Bacteroides ureolyticus*, and species of *Campylobacter*. They divided these 56 strains into seven groups based on the guanine-plus-cytosine contents of their deoxyribonucleic acids, their deoxyribonucleic acid homologies, and cluster analyses of their phenotypic features. A total of 23 of the fresh isolates showed more than 90% similarity (Jaccard coefficient) with *E. corrodens*. Growth of the remaining 23 isolates was enhanced in broth cultures by formate and fumarate. These isolates were not members of *B. ureolyticus*, *V. succinogenes*, or previously described species of *Campylobacter*; they constituted 3 distinct new species. They propose *Bacteroides gracilis* sp. nov. (type strain, ATCC 33236) as the name for 7 isolates of slender, gram-negative, **nonmotile**, anaerobic, rod-shaped bacteria that corroded agar and had deoxyribonucleic acid guanine-plus-cytosine contents of 44 to 46 mol%. All of the remaining isolates were motile by means of a single polar flagellum. Ten anaerobic strains were similar to *V. succinogenes* in phenotypic characteristics and guanine-plus-cytosine contents. However, these strains were distinct from *V. succinogenes* on the basis of deoxyribonucleic acid homology results. They propose *Wolinella* as the name of a new genus to include anaerobic, asaccharolytic, rod-shaped bacteria

Western blot analysis of intestinal secretory immunoglobulin A response to *Campylobacter jejuni* antigens in patients with naturally acquired *Campylobacter enteritis*.

Winsor DK; Mathewson JJ; DuPont HL

Gastroenterology (UNITED STATES) May 1986, 90 (5 Pt 1) p1217-22,

ISSN 0016-5085 Journal Code: FH3

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Secretory immunoglobulin A (sIgA) response at the intestinal mucosa is a primary defense against enteric infections. We sought to determine which antigens of *Campylobacter jejuni* outer membranes elicited sIgA responses in 8 patients with naturally acquired *Campylobacter enteritis* using Western blot analysis of fecal extracts. Naturally acquired *Campylobacter* infection elicited an sIgA response in 7 of 8 patients. Of these 7 patients, 5 had *Campylobacter*-specific sIgA titers of 1:16 and two had titers of 1:64. The *C. jejuni* antigens eliciting sIgA production varied, but 5 of 8 patients exhibited reactions to a 63-kilodalton flagellar antigen, and 7 of 8 patients had a reaction with a 58- and a 44-kilodalton antigen of *C. jejuni* and *Campylobacter coli*. Reaction with a 14.5- and a 97 - kilodalton antigen was observed with the only stool that contained gross blood and mucus. Reactions with *Campylobacter* antigens were not detected in the fecal extracts of 5 healthy individuals. Identification of the antigens of *C. jejuni* that elicit an sIgA response may help us to better understand the immunology of *Campylobacter enteritis* and to identify antigens that are important in vaccine development.

14006 Digestive System-Pathology  
 22002 Pharmacology-General  
 22501 Toxicology-General; Methods and Experimental  
 25000 Pediatrics  
 31000 Physiology and Biochemistry of Bacteria  
 36002 Medical and Clinical Microbiology-Bacteriology  
 37052 Public Health: Epidemiology-Communicable Diseases  
 38504 Chemotherapy-Antibacterial Agents  
 10060 Biochemical Studies-General  
 10068 Biochemical Studies-Carbohydrates  
 32000 Microbiological Apparatus, Methods and Media  
 34502 Immunology and Immunochemistry-General; Methods  
 37400 Public Health: Microbiology

BIOSYSTEMATIC CODES:

04610 Spirillaceae (1979- )  
 86215 Hominidae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

Microorganisms  
 Bacteria  
 Animals  
 Chordates  
 Vertebrates  
 Mammals  
 Primates  
 Humans

6/9/15 (Item 2 from file: 144)

DIALOG(R) File 144:Pascal

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11586341 PASCAL No.: 94-0472432

**Concentration of campylobacter-specific antibodies in the colostrum of immunized cows**

SYVAEOJA E L; AHOLA-LUTTILA H K; KALSTA H; MATILAINEN M H; LAAKSO S; HUSU J R; KOSUNEN T U

Valio Ltd, res. development cent., 00101 Helsinki, Finland

Journal: Milchwissenschaft, 1994, 49 (1) 27-31

ISSN: 0026-3788 CODEN: MILCAD Availability: INIST-4873;

354000024820330070

No. of Refs.: 24 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: Federal Republic of Germany

Language: English Summary Language: German

English Descriptors: Milk; Cow; Colostrum; Antibody; Specificity;

Campylobacter jejuni; **Passive immunity**

Broad Descriptors: Ox; Artiodactyla; Ungulata; Mammalia; Vertebrata;

Campylobacteraceae; Bacteria; Boeuf; Artiodactyla; Ungulata; Mammalia;

Vertebrata; Campylobacteraceae; Bacterie; Buey; Artiodactyla; Ungulata;

Mammalia; Vertebrata; Campylobacteraceae; Bacteria

French Descriptors: Lait; Vache; Colostrum; Anticorps; Specificite;

Campylobacter jejuni; **Immunité passive**

Classification Codes: 002A36C03

6/9/16 (Item 3 from file: 144)

DIALOG(R) File 144:Pascal

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11096042 PASCAL No.: 93-0603063

**Production of hyperimmune bovine colostrum against Campylobacter jejuni**

HUSU J; SYVAEOJA E L; AHOLA-LUTTILA H; KALSTA H; SIVELAE S; KOSUNEN T U

Univ. Helsinki, national veterinary inst., dep. bacteriology serology,

00101 Helsinki, Finland

Journal: Journal of applied bacteriology, 1993, 74 (5) 564-569  
ISSN: 0021-8847 CODEN: JABAA4 Availability: INIST-7415;  
354000037282930090

No. of Refs.: 1 p.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United Kingdom

Language: English

Serial immunization of dairy cows with *Campylobacter jejuni* resulted in an enhanced serum antibody response and production of hyperimmune colostrum in all vaccinated animals. An approximate 10-fold decrease in the *Camp. jejuni*-specific antibody titres in colostrum was observed within 2 d post-partum. The lyophilized colostrum concentrate fed to newborn calves resulted in a rapid increase in serum antibody response. Specific *Camp. jejuni* immunoglobulins could be detected in these animals for a further 10 weeks. The lyophilized hyperimmunized colostrum was very stable in vitro at different storage temperatures. It could be used for **passive immunization** to campylobacteriosis.

English Descriptors: Bovine; Immunization; *Campylobacter jejuni*; Immune response; Humoral immunity; Antibody; Serum; Colostrum; Hyperimmunization ; Vaccine; Newborn animal; Immunoglobulins

Broad Descriptors: Artiodactyla; Ungulata; Mammalia; Vertebrata; Spirillaceae; Spirillales; Bacteria; Artiodactyla; Ungulata; Mammalia; Vertebrata; Spirillaceae; Spirillales; Bacterie; Artiodactyla; Ungulata; Mammalia; Vertebrata; Spirillaceae; Spirillales; Bacteria

French Descriptors: Bovin; Immunisation; *Campylobacter jejuni*; Reponse immune; Immunité humorale; Anticorps; Serum; Colostrum; Hyperimmunisation ; Vaccin; Animal nouveau ne; Immunoglobuline

Classification Codes: 002A05B12

6/9/19 (Item 6 from file: 144)  
DIALOG(R) File 144:Pascal  
(c) 2001 INIST/CNRS. All rts. reserv.

08166276 PASCAL No.: 88-0166622

**The mechanism of protection of infant mice from intestinal colonisation with *Campylobacter jejuni***

ABIMIKU A G; DOLBY J M

MRC clin. res. cent., div. communicable diseases, Harrow Middx. MA1 3UJ,  
United Kingdom

Journal: Journal of medical Microbiology, 1987, 23 (4) 339-344

ISSN: 0022-2615 CODEN: JMMIAV Availability: CNRS-988B

No. of Refs.: 19 ref.

Document Type: P (Serial) ; A (Analytic)

Country of Publication: United Kingdom

Language: ENGLISH

English Descriptors: *Campylobacter jejuni*; Mouse; Vaccine; Inactivated strain; Immunoprotection; Milk; Colostrum; Milk transfer; Antibody; IgG; IgA; Vaccination; Mother; **Passive immunization** ; Progeny; Experimental animal

Broad Descriptors: Spirillaceae; Spirillales; Bacteria; Rodentia; Mammalia; Vertebrata; Spirillaceae; Spirillales; Bacterie; Rodentia; Mammalia; Vertebrata; Spirillaceae; Spirillales; Bacteria; Rodentia; Mammalia; Vertebrata

French Descriptors: *Campylobacter jejuni*; Souris; Vaccin; Souche inactivee; Immunoprotection; Lait; Colostrum; Passage lait; Anticorps; IgG; IgA; Vaccination; Mere; **Immunisation passive** ; Descendance; Animal experience

Classification Codes: 002A05B12

6/9/20 (Item 7 from file: 144)  
DIALOG(R)File 144:Pascal  
(c) 2001 INIST/CNRS. All rts. reserv.

07515080 PASCAL No.: 87-0016648  
**The protection of infant mice from colonization with Campylobacter jejuni by vaccination of the dams**  
DOLBY J M; NEWELL D G  
Clin. res. cent., Harrow HA1 3UJ, United Kingdom  
Journal: Journal of Hygiene, 1986, 96 (2) 143-151  
ISSN: 0022-1724 Availability: CNRS-6056  
No. of Refs.: 25 ref.  
Document Type: P (Serial) ; A (Analytic)  
Country of Publication: United Kingdom  
Language: English

English Descriptors: Campylobacter jejuni; Flagellum; Vaccination; Mouse; Mother; Immunoprotection; Newborn animal; Animal model; Active immunization; Specificity; Variant; Campylobacter infection; Experimental disease; **Passive immunity** ; Vaccine strain; Inactivated strain  
Broad Descriptors: Spirillaceae; Spirillales; Bacteria; Rodentia; Mammalia; Vertebrata; Bacteriosis; Infection; Spirillaceae; Spirillales; Bacterie; Rodentia; Mammalia; Vertebrata; Bacteriose; Infection; Bacteria; Bacteriosis; Infeccion  
French Descriptors: Campylobacter jejuni; Flagelle; Vaccination; Souris; Mere; Immunoprotection; Animal nouveau ne; Modele animal; Immunisation active; Specificite; Variant; Campylobacteriose; Pathologie experimentale ; **Immunité passive** ; Souche vaccinale; Souche inactivee

Classification Codes: 002A05B12

6/9/22 (Item 9 from file: 144)  
DIALOG(R)File 144:Pascal  
(c) 2001 INIST/CNRS. All rts. reserv.

02307538 PASCAL No.: 79-0314610  
**EFFECTS OF PASSIVELY AND ACTIVELY ACQUIRED ANTIBODY ON BOVINE CAMPYLOBACTERIOSIS (VIBRIOSIS)**  
BERG R L; FIREHAMMER B D; BORDER M; MYERS L L  
MONTANA STATE UNIV. VET. RES. LAB., BOZEMAN MT 59717, USA  
Journal: AMER. J. VETER. RES., 1979, 40 (1) 21-31  
Availability: CNRS-4164  
No. of Refs.: 26 REF.  
Document Type: P (SERIAL) ; A (ANALYTIC)  
Country of Publication: USA  
Language: ENGLISH

English Descriptors: EXPERIMENTAL ANIMAL; ANTIBODY; BACTERIOSIS; BOVINE; CAMPYLOBACTER FETUS; CAMPYLOBACTER INFECTION; ACTIVE **IMMUNIZATION** ; **PASSIVE IMMUNIZATION** ; IMMUNOPROTECTION; INFECTION; MAMMALIA; EXPERIMENTAL DISEASE; PREVENTION; RODENTIA; VACCINATION  
English Generic Descriptors: MICROBIOLOGY

French Descriptors: CAMPYLOBACTERIOSE; **IMMUNISATION PASSIVE** ; **IMMUNISATION** ACTIVE; ANTICORPS; BOVIN; VACCINATION; CAMPYLOBACTER FETUS; PATHOLOGIE EXPERIMENTALE; IMMUNOPROTECTION; PREVENTION; ANIMAL EXPERIENCE ; MAMMALIA; RODENTIA; BACTERIOSE; INFECTION  
French Generic Descriptors: MICROBIOLOGIE

Classification Codes: 340A08A11

6/9/23 (Item 1 from file: 155)

IgM--immunology--IM; Immunization; Mice; Mice, Inbred Strains; Peripheral  
Nerves--immunology--IM  
CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Complement 3); 0  
(Gangliosides); 0 (IgM); 0 (Lipopolysaccharides)  
Record Date Created: 19991013

6/9/25 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

09332089 97325879 PMID: 9182891

**Oral administration of antibodies as prophylaxis and therapy in  
Campylobacter jejuni-infected chickens.**

Tsubokura K; Berndtson E; Bogstedt A; Kaijser B; Kim M; Ozeki M;  
Hammarstrom L

Department of Clinical Immunology, Huddinge Hospital, Sweden.

Clinical and experimental immunology (ENGLAND) Jun 1997, 108 (3)  
p451-5, ISSN 0009-9104 Journal Code: DD7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

**Passive immunity** against gastrointestinal infections has recently  
been successfully applied as prophylaxis and therapy in patients in a  
variety of virally and bacterially induced infections. *Campylobacter jejuni*  
is frequently associated with acute diarrhoea in humans, and several  
species of animals have been shown to transmit the disease, although birds  
have been implicated as the main source of infection. We used bovine and  
chicken immunoglobulin preparations from the milk and eggs, respectively,  
of immunized animals for prophylactic and therapeutic treatment of chickens  
infected with *C. jejuni*. A marked prophylactic effect (a >99% decrease in  
the number of bacteria) was noted using either antibody preparation,  
whereas the therapeutic efficacy, i.e. when antibodies were given after the  
infection was established, was distinctly lower (80-95%) as judged by  
faecal bacterial counts. These observations may serve as a starting point  
for experiments aimed at elimination of the infection in an industrial or  
farm setting. It may also encourage future attempts to treat,  
prophylactically or therapeutically, patients with *Campylobacter*-induced  
diarrhoea.

Tags: Animal; Female; Support, Non-U.S. Gov't

Descriptors: \*Antibodies, Bacterial--therapeutic use--TU; \**Campylobacter*  
Infections--prevention and control--PC; \**Campylobacter jejuni*--immunology  
--IM; Administration, Oral; *Campylobacter* Infections--therapy--TH; Cattle;  
Chickens; **Immunization**, **Passive**

CAS Registry No.: 0 (Antibodies, Bacterial)

Record Date Created: 19970626

6/9/26 (Item 4 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

08254807 95014937 PMID: 7929763

**Persistence of *Campylobacter fetus* bacteremia associated with absence  
of opsonizing antibodies.**

Neuzil KM; Wang E; Haas DW; Blaser MJ

Division of Infectious Diseases, Vanderbilt University School of  
Medicine, Nashville, Tennessee 37232.

Journal of clinical microbiology (UNITED STATES) Jul 1994, 32 (7)  
p1718-20, ISSN 0095-1137 Journal Code: HSH

Contract/Grant No.: GM07569, GM, NIGMS; R01 AI 24145, AI, NIAID

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

*Campylobacter fetus* causes systemic infections in immunocompromised

hosts. We describe a case in which *C. fetus* bacteremia apparently relapsed after 7 years in a patient with hypogammaglobulinemia and characterize the serum resistance of the patient's *C. fetus* strain and the inability of the patient's serum, with and without commercial intravenous immunoglobulin, to opsonize this and another *C. fetus* strain effectively. The probable presence of a sequestered site of infection in bone, the intrinsic serum resistance of the *C. fetus* strain, and the absence of specific antibody may account for the persistent infection in this patient. These studies suggest that intravenous immunoglobulin treatment is not useful in eradicating *C. fetus* bacteremia.

Tags: Case Report; Human; Male; Support, U.S. Gov't, P.H.S.

Descriptors: \*Agammaglobulinemia--complications--CO; \*Antibodies, Bacterial--immunology--IM; \*Bacteremia--immunology--IM; \*Campylobacter fetus--immunology--IM; Bacteremia--etiology--ET; Bacteremia--therapy--TH; Blood Bactericidal Activity; Immunization , Passive ; Middle Age; Opsonins--immunology--IM; Recurrence; Treatment Failure  
CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Opsonins)  
Record Date Created: 19941121

6/9/27 (Item 5 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

08021407 93225686 PMID: 8096934

**Oral immunoglobulin treatment in *Campylobacter jejuni* enteritis.**

Heaton P

Lancet (ENGLAND) Apr 17 1993, 341 (8851) p1036, ISSN 0140-6736

Journal Code: L0S

Comment on Lancet. 1993 Mar 13;341(8846) 701-2

Languages: ENGLISH

Document type: Comment; Letter

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Tags: Animal; Human; Male

Descriptors: Colostrum--immunology--IM; \*Cryptosporidiosis--therapy--TH;

\* Immunization , Passive --methods--MT; \*Intestinal Diseases--therapy--TH  
; Cattle; Child

Record Date Created: 19930511

6/9/29 (Item 7 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

07281259 91054093 PMID: 2241686

**Influence of antibody treatment of *Campylobacter jejuni* on the dose required to colonize chicks.**

Stern NJ; Meinersmann RJ; Dickerson HW

Poultry Microbiological Safety Research Unit, Richard B. Russell Agricultural Research Center, USDA-Agricultural Research Service, Athens, Georgia 30613.

Avian diseases (UNITED STATES) Jul-Sep 1990, 34 (3) p595-601, ISSN 0005-2086 Journal Code: 9IY

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

This study was designed to clarify the role of antibodies in controlling chicken colonization by *Campylobacter jejuni*. Cecal colonization by *C. jejuni* was compared after the organism was exposed either to phosphate-buffered saline, normal rabbit serum, rabbit hyperimmune anti-*C. jejuni* serum, or anti-*C. jejuni* antibodies extracted from chicken bile. Antibodies from chicken bile were extracted by affinity absorption against outer-membrane proteins from the challenge organism. Sera were heated 1 hour at 56 C to destroy complement activity. Bacterial inoculum levels were enumerated after 1 hour exposure at 4 C to the various treatments. The



heated sera and the bile antibodies were not bactericidal, and bacterial agglutination was not evident. Serial dilutions of the antibody-treated C. jejuni were given by gavage into 1-day-old chicks. Six days later, the ceca were removed from the chicks, and samples were cultured on Campylobacter-charcoal differential agar. The colonization dose-50% was increased by twofold to 160-fold when the organism was preincubated with hyperimmune antiserum or the bile antibodies as compared with preincubation with phosphate-buffered saline. We conclude that antibodies inhibit chicken cecal colonization by C. jejuni.

Tags: Animal; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Descriptors: Campylobacter Infections--veterinary--VE; \*Campylobacter jejuni--immunology--IM; \*Chickens; \* **Immunization** , **Passive** ; \*Poultry Diseases--immunology--IM; Bile--immunology--IM; Campylobacter Infections--immunology--IM; Campylobacter jejuni--growth and development--GD; Carrier State--immunology--IM; Carrier State--veterinary--VE; Cecum--microbiology--MI; Colony Count, Microbial; Dose-Response Relationship, Immunologic; Enzyme-Linked Immunosorbent Assay; IgA, Secretory--immunology--IM; IgA, Secretory--isolation and purification--IP; Immune Sera--immunology--IM

CAS Registry No.: 0 (IgA, Secretory); 0 (Immune Sera)

Record Date Created: 19901207

6/9/30 (Item 8 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

07104296 94139766 PMID: 8307048

**Use of an immunoglobulin M containing preparation for treatment of two hypogammaglobulinemic patients with persistent Campylobacter jejuni infection.**

Borleffs JC; Schellekens JF; Brouwer E; Rozenberg-Arska M  
Department of Internal Medicine, University Hospital Utrecht, The Netherlands.

European journal of clinical microbiology & infectious diseases (GERMANY)

Oct 1993, 12 (10) p772-5, ISSN 0934-9723 Journal Code: EM5

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

This report describes two hypogammaglobulinemic patients with persistent Campylobacter jejuni infections in spite of IgG substitution and antibiotic therapy. Since serum bactericidal activity (SBA) depends on IgM, these patients were each treated with six doses of an IgM-containing immunoglobulin preparation (Pentaglobin) at three-week intervals. During IgG therapy SBA was not seen in either patient. However, one hour following administration of the IgM preparation, SBA increased to 90%. Just before the next dose SBA was still at the 30-70% level. Both patients tolerated the therapy very well and there were no culture-confirmed relapses of Campylobacter jejuni infection. The IgM preparation may therefore be a useful alternative to conventional IgG in the treatment of hypogammaglobulinemic patients with persistent Campylobacter jejuni infection.

Tags: Human

Descriptors: Agammaglobulinemia--therapy--TH; \*Campylobacter Infections--therapy--TH; \*Campylobacter jejuni; \*IgM--therapeutic use--TU; \* **Immunization** , **Passive** ; Adult; Agammaglobulinemia--genetics--GE; Blood Bactericidal Activity; Campylobacter Infections--immunology--IM

CAS Registry No.: 0 (IgM)

Record Date Created: 19940311

6/9/31 (Item 9 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

07026144 93132387 PMID: 8421171

**Pathogenesis of Campylobacter fetus infections: critical role of**

**high-molecular-weight S-layer proteins in virulence.**

Blaser MJ; Pei Z  
Department of Medicine, Vanderbilt University School of Medicine,  
Nashville, TN 37232-2605.

Journal of infectious diseases (UNITED STATES) Feb 1993, 167 (2)  
p372-7, ISSN 0022-1899 Journal Code: IH3  
Contract/Grant No.: AI-24145, AI, NIAID  
Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Wild-type *Campylobacter fetus* strains possess high-molecular-weight S-layer proteins (S+) and are highly resistant to serum-mediated killing and phagocytosis. Spontaneous mutant strains lacking these proteins (S-) are serum and phagocytosis sensitive and have reduced virulence in a mouse model. Intact S+ cells were treated with pronase, which made them S- although genotypically S+ and had essentially no effect on other cellular proteins or on viability. Treatment with pronase, but not buffer alone, rendered these cells serum and phagocytosis sensitive and reduced mouse virulence to the level observed for the S- mutant cells. In related studies, purified S-layer proteins diminished neutrophil chemoluminescent responses to a heterologous particulate antigen. Finally, passive administration of antiserum to the 97-kDa S-layer protein partially protected mice against lethal challenge with the S+ strain. These studies define the contribution of the S-layer proteins to *C. fetus* virulence.

Tags: Animal; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

Descriptors: \*Bacterial Proteins--immunology--IM; \**Campylobacter* Infections--microbiology--MI; \**Campylobacter fetus*--pathogenicity--PY; Antigens, Bacterial--physiology--PH; Blood Bactericidal Activity; *Campylobacter* Infections--immunology--IM; *Campylobacter fetus*--immunology--IM; *Campylobacter fetus*--metabolism--ME; Chemiluminescence; Immunization, Passive; Mice; Phagocytosis; Pronase--metabolism--ME; Virulence

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Bacterial Proteins); 0 (streptococcal cell surface antigen I-II)  
Enzyme No.: EC 3.4.24.- (Pronase)  
Record Date Created: 19930212

6/9/33 (Item 11 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

02741677 79207550 PMID: 88198

**Effects of passively and actively acquired antibody on bovine campylobacteriosis (vibriosis).**

Berg RL; Firehammer BD; Border M; Myers LL

American journal of veterinary research (UNITED STATES) Jan 1979, 40

(1) p21-5, ISSN 0002-9645 Journal Code: 40C

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Tags: Animal; Female

Descriptors: \**Campylobacter* Infections--veterinary--VE; \*Cattle Diseases--prevention and control--PC; \*Immunity, Active; \*Immunity, Maternally-Acquired; Antibodies, Bacterial--analysis--AN; *Campylobacter* Infections--immunology--IM; *Campylobacter* Infections--prevention and control--PC; *Campylobacter fetus*--immunology--IM; Cattle; Cattle Diseases--immunology--IM; Gamma-Globulins--administration and dosage--AD; Immunization, Passive; Vaccination--veterinary--VE

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Gamma-Globulins)  
Record Date Created: 19790901

6/9/35 (Item 2 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Food Science & Technology  
(c) 2001 LFRA. All rts. reserv.

00296239 FOODLINE ACCESSION NUMBER: 311018

**Production of hyperimmune bovine colostrum against Campylobacter jejuni.**  
Husu J; Syvaaja E -L; Ahola-Luttila H; Kalsta H; Sivela S; Kosunen T U  
Journal of Applied Bacteriology 74 (5), 564-569 (32 ref.)  
1993

LANGUAGE: English

DOCUMENT TYPE: Journal article

FOODLINE UPDATE CODE: 19930521

ABSTRACT: Campylobacter jejuni is a major foodborne human enteric pathogen.  
The mechanisms responsible for immunity against C. jejuni are not clear. Serial immunisation of dairy cows with C. jejuni enhanced the serum antibody response and production of hyperimmune colostrum. The lyophilised colostrum concentrate fed to newborn calves resulted in a rapid increase in serum antibody response. The lyophilised colostrum could be used for **passive immunisation** to campylobacteriosis.

SECTION HEADING: MICROBIOLOGY

DESCRIPTORS: ANTIBODIES; BACTERIA; CAMPYLOBACTER JEJUNI; COLOSTRUM; FORMATION

6/9/36 (Item 1 from file: 162)

DIALOG(R)File 162:CAB HEALTH

(c) 2001 CAB INTERNATIONAL. All rts. reserv.

00590115 CAB Accession Number: 962008925

**An unusual case of refractory Campylobacter jejuni infection in a patient with X-linked agammaglobulinemia: successful combined therapy with maternal plasma and ciprofloxacin.**

Autenrieth, I. B.; Schuster, V.; Ewald, J.; Harmsen, D.; Kreth, H. W.  
Institut für Hygiene und Mikrobiologie der Universität Würzburg,  
Josef-Schneider-Strasse 2, Bau 17, D-97080 Würzburg, Germany.

Clinical Infectious Diseases vol. 23 (3): p.526-531

Publication Year: 1996

ISSN: 1058-4838

Language: English

Document Type: Journal article

An unusual hippurate-negative strain of Campylobacter jejuni caused a chronic refractory infection in a patient in Germany with X-linked agammaglobulinaemia; this infection persisted for >2 years despite therapy with various antibiotics and immunoglobulins (Igs). To characterize the defense status of this patient, several in vitro studies, including those with T cells and polymorphonuclear leukocytes (PMNLs), were performed. T cell responses specific for C. jejuni were only weak in this patient. Chemiluminescence and bacterial killing studies with PMNLs revealed that the bactericidal activity of PMNLs against Campylobacter was enhanced more vigorously by maternal serum than by commercial Ig preparations. On the basis of these results, combined treatment with ciprofloxacin and maternal plasma was initiated, and the C. jejuni infection was rapidly cured. This case report shows that in vitro immunologic assays may be useful for characterizing immune functions of patients with chronic or refractory C. jejuni infections, thus leading to individual treatment strategies. 18 ref.

DESCRIPTORS: human diseases; case reports; infection; therapy; blood plasma; ciprofloxacin; immunoglobulins; **passive immunization**; infections; drug therapy; immunocompromised hosts

ORGANISM DESCRIPTORS: man; Campylobacter jejuni

GEOGRAPHIC NAMES: Germany; Europe

BROADER TERMS: Homo; Hominidae; Primates; mammals; vertebrates; Chordata; animals; Campylobacter; Spirillaceae; Gracilicutes; bacteria; prokaryotes; European Union Countries; Developed Countries; OECD Countries; Western Europe; Europe

CABICODES: Parasites, Vectors, Pathogens & Biogenic Diseases of Humans (VV200)

6/9/38 (Item 3 from file: 162)  
DIALOG(R)File 162:CAB HEALTH  
(c) 2001 CAB INTERNATIONAL. All rts. reserv.

00433898 CAB Accession Number: 920456532

**Study of the anti- Campylobacter immune response in human milk.**

Original Title: Etude de la reponse immunitaire anti-Campylobacter dans le lait maternel.

Renom, G.; Kirimat, M.; Georges-Courbot, M. C.; Georges, A. J.; Martin, P. M. V.

Institut Pasteur, BP 923, Bangui, Central African Republic.

Bulletin de la Societe de Pathologie Exotique et de ses Filiales vol. 84 (5/5 bis): p.948-949

Publication Year: 1991

Language: French

Document Type: Conference paper; Abstract only

Campylobacter coli and C. jejuni are 2 of the major organisms that cause diarrhoea in infants <1 yr old in developing countries. In addition to immunity gained post-infection, many infants have **immunity** gained both from **passive** transfer of serum IgG from their mothers and also from IgA ingested in milk during breast-feeding. 126 samples of milk from women from the Central African Republic and 34 from French women were tested with a purified flagellin of Campylobacter, using an ELISA. IgA-type anti-flagellin antibodies were found in all the African samples and in 88% (30/34) of the French samples. IgG-type anti-flagellin antibodies were found in only 5 of the African samples (4%) and in none of the French samples. First results indicated that, although the levels of total IgA in colostrum were 25x higher than in milk, the specific anti-flagellin activity was constant throughout lactation and was no higher in milk from African than in that from French women. The isotype-dependent character of this immune response and its protective effects in infants are further discussed.

DESCRIPTORS: Immunoglobulins; IgG; antibodies; human milk; IgA

IDENTIFIERS: Third International Congress of Tropical Medicine in the French Language

ORGANISM DESCRIPTORS: Campylobacter jejuni; Campylobacter pylori

GEOGRAPHIC NAMES: Central African Republic; France

BROADER TERMS: Campylobacter; Spirillaceae; Gracilicutes; bacteria; prokaryotes; Central Africa; Africa South of Sahara; Africa; Western Europe; Europe; Mediterranean Region

CABICODES: General Molecular Biology (ZZ360); Human Nutrition (General) (VV100)

6/9/41 (Item 3 from file: 50)  
DIALOG(R)File 50:CAB Abstracts  
(c) 2001 CAB International. All rts. reserv.

02630097 CAB Accession Number: 920456532

**Study of the anti- Campylobacter immune response in human milk.**

Original Title: Etude de la reponse immunitaire anti-Campylobacter dans le lait maternel.

Renom, G.; Kirimat, M.; Georges-Courbot, M. C.; Georges, A. J.; Martin, P. M. V.

Institut Pasteur, BP 923, Bangui, Central African Republic.

Bulletin de la Societe de Pathologie Exotique et de ses Filiales vol. 84 (5/5 bis): p.948-949

Publication Year: 1991 --

Language: French

Document Type: Conference paper; Abstract only

Campylobacter coli and C. jejuni are 2 of the major organisms that cause diarrhoea in infants <1 yr old in developing countries. In addition to immunity gained post-infection, many infants have **immunity** gained both from **passive** transfer of serum IgG from their mothers and also from IgA

ingested in milk during breast-feeding. 126 samples of milk from women from the Central African Republic and 34 from French women were tested with a purified flagellin of *Campylobacter*, using an ELISA. IgA-type anti-flagellin antibodies were found in all the African samples and in 88% (30/34) of the French samples. IgG-type anti-flagellin antibodies were found in only 5 of the African samples (4%) and in none of the French samples. First results indicated that, although the levels of total IgA in colostrum were 25x higher than in milk, the specific anti-flagellin activity was constant throughout lactation and was no higher in milk from African than in that from French women. The isotype-dependent character of this immune response and its protective effects in infants are further discussed.

DESCRIPTORS: Immunoglobulins; IgG; antibodies; human milk; IgA  
IDENTIFIERS: *Campylobacter pylori*; Third International Congress of Tropical Medicine in the French Language  
ORGANISM DESCRIPTORS: *Campylobacter jejuni*  
GEOGRAPHIC NAMES: Central African Republic; France  
BROADER TERMS: *Campylobacter*; *Spirillaceae*; *Gracilicutes*; bacteria; prokaryotes; Central Africa; Africa South of Sahara; Africa; Western Europe; Europe; Mediterranean Countries  
CABICODES: General Molecular Biology (ZZ360); Human Nutrition (General) (VV100)

6/9/56 (Item 1 from file: 151)  
DIALOG(R)File 151:HealthSTAR  
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02385371 95014937

**Persistence of *Campylobacter fetus* bacteremia associated with absence of opsonizing antibodies.**

Neuzil KM; Wang E; Haas DW; Blaser MJ  
Division of Infectious Diseases, Vanderbilt University School of Medicine, Nashville, Tennessee 37232.

J Clin Microbiol (UNITED STATES) Jul 1994, 32 (7) p1718-20,

ISSN: 0095-1137 JOURNAL CODE: HSH

Contract/Grant No.: GM07569 GM NIGMS; RO1 AI 24145 AI NIAID

Languages: ENGLISH

Document Type: JOURNAL ARTICLE

Journal Announcement: 9501

SUBFILE: INDEX MEDICUS MED/95014937

*Campylobacter fetus* causes systemic infections in immunocompromised hosts. We describe a case in which *C. fetus* bacteremia apparently relapsed after 7 years in a patient with hypogammaglobulinemia and characterize the serum resistance of the patient's *C. fetus* strain and the inability of the patient's serum, with and without commercial intravenous immunoglobulin, to opsonize this and another *C. fetus* strain effectively. The probable presence of a sequestered site of infection in bone, the intrinsic serum resistance of the *C. fetus* strain, and the absence of specific antibody may account for the persistent infection in this patient. These studies suggest that intravenous immunoglobulin treatment is not useful in eradicating *C. fetus* bacteremia.

Tags: Case Report; Human; Male; Support, U.S. Gov't, P.H.S.

Descriptors: \*Agammaglobulinemia--Complications--CO; \*Antibodies, Bacterial--Immunology--IM; \*Bacteremia--Immunology--IM; \**Campylobacter fetus*--Immunology--IM; Bacteremia--Etiology--ET; Bacteremia--Therapy--TH; Blood Bactericidal Activity; Immunization, Passive; Middle Age; Opsonins--Immunology--IM; Recurrence; Treatment Failure  
CAS REGISTRY NO.: 0 (Antibodies, Bacterial); 0 (Opsonins)

6/9/58 (Item 1 from file: 10)  
DIALOG(R)File 10:AGRICOLA  
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3363697 20390477 Holding Library: AGL

**Production of hyperimmune bovine colostrum against Campylobacter jejuni**  
Husu, J. Syvaaja, E.L.; Ahola-Luttila, H.; Kalsta, H.; Sivela, S.;  
Kosunen, T.U.

Oxford ; New York : Blackwell Scientific, 1954-

The Journal of applied bacteriology. May 1993. v. 74 (5) p. 564-569.

ISSN: 0021-8847 CODEN: JABAA4

DNAL CALL NO: 448.39 Sol2

Language: English

Includes references

Place of Publication: England

Subfile: IND; OTHER FOREIGN;

Document Type: Article

Serial immunization of dairy cows with Campylobacter jejuni resulted in an enhanced serum antibody response and production of hyperimmune colostrum in all vaccinated animals. An approximate 10-fold decrease in the Camp. jejuni-specific antibody titers in colostrum was observed within 2 d post-partum. The lyophilized colostrum concentrate fed to newborn calves resulted in a rapid increase in serum antibody response. Specific Camp. jejuni immunoglobulins could be detected in these animals for a further 10 weeks. The lyophilized hyperimmunized colostrum was very stable in vitro at different storage temperatures. It could be used for **passive immunization** to campylobacteriosis.

DESCRIPTORS: dairy cows - calves - campylobacter jejuni - cow colostrum  
- **passive immunization** - hyperimmunization - antibody formation -  
reservoir hosts - bacterial diseases;

Identifiers: campylobacteriosis

Section Headings: L832 ANIMAL DISEASES-BACTERIAL

6/9/61 (Item 1 from file: 203)

DIALOG(R) File 203:AGRIS

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02005778 AGRIS No: 96-087763

**Detection of Campylobacter jejuni antibody in layer hens and progeny;**  
[Abstract]

Shanker, S.; Lee, A.; Sorrell, T.C.

Journal: Microbial Ecology in Health and Disease, 1991, v. 4(special) p.  
S84

Notes: VI International Workshop on Campylobacter Helicobacter and  
related organisms, october 7-10th 1991, Sydney, Australia.

Language: English

Place of Publication: United Kingdom

Document Type: Journal Article,

Journal Announcement: 2207 Record input by United Kingdom

Descriptors in English: \*LAYER CHICKENS; \*MATERNAL IMMUNITY; \*ELISA; \*  
CAMPYLOBACTER JEJUNI; BACTERIA; BIRDS; CAMPYLOBACTER; CHICKENS;  
DOMESTIC ANIMALS; DOMESTICATED BIRDS; GALLIFORMES; IMMUNITY;  
IMMUNOENZYME TECHNIQUES; **IMMUNOLOGICAL** TECHNIQUES; LIVESTOCK; **PASSIVE**  
**IMMUNITY** ; POULTRY; SPIRILLACEAE; USEFUL ANIMALS;

Descriptors in Spanish: \*GALLINA PONEDORA; \*INMUNIDAD MATERNA; \*ELISA; \*  
CAMPYLOBACTER JEJUNI; ANIMALES DOMESTICOS; ANIMALES UTILES; AVES DE  
CORRAL; AVES DOMESTICAS; BACTERIA; CAMPYLOBACTER; GALLIFORMES; GANADO;  
INMUNIDAD; INMUNIDAD PASIVA; PAJAROS; POLLO; SPIRILLACEAE; TECNICAS  
INMUNOENZIMATICAS; TECNICAS INMUNOLOGICAS;

Descriptors in French: \*POULE PONDEUSE; \*IMMUNITE MATERNELLE; \*TEST ELISA  
; \*CAMPYLOBACTER JEJUNI; ANIMAL DOMESTIQUE; ANIMAL UTILE; BACTERIA;  
BETAIL; CAMPYLOBACTER; GALLIFORMES; **IMMUNITE** ; **IMMUNITE PASSIVE** ;  
**OISEAU**^ ; OISEAU DOMESTIQUE; POULET; SPIRILLACEAE; TECHNIQUE  
IMMUNOENZYMATIQUE; TECHNIQUE IMMUNOLOGIQUE; VOLAILLE;

Section Headings: L73 (ANIMAL PRODUCTION -- Animal diseases)

?logoff hold

Descriptors: \*Campylobacter Infections--etiology--ET; \*Campylobacter jejuni--pathogenicity--PY; \*Flagella; \*Intestines--microbiology--MI; \*Variation (Genetics); Animals, Newborn; Campylobacter jejuni--growth and development--GD; Mice; Phenotype; Species Specificity; Virulence  
Record Date Created: 19930831

4/9/22 (Item 22 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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07212398 90202702 PMID: 2318805

**Genomic organization and expression of Campylobacter flagellin genes.**

Guerry P; Logan SM; Thornton S; Trust TJ  
Infectious Diseases Department, Naval Medical Research Institute,  
Bethesda, Maryland 20814.

Journal of bacteriology (UNITED STATES) Apr 1990, 172 (4) p1853-60,  
ISSN 0021-9193 Journal Code: HH3

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Campylobacter coli VC167, which undergoes an antigenic flagellar variation, contains two full-length flagellin genes, flaA and flaB, that are located adjacent to one another in a tandem orientation and are 91.5% homologous. The gene product of flaB, which has an Mr of 58,946, has 93% sequence homology to the gene product of flaA, which has an Mr of 58,916 (S. M. Logan, T. J. Trust, and P. Guerry, J. Bacteriol. 171:3031-3038, 1989). Mutational analyses and primer extension experiments indicated that the two genes are transcribed under the control of distinct promoters but that they are expressed concomitantly in the same cell, regardless of the antigenic phase of flagella being produced. The flaA gene, which was expressed at higher levels than the flaB gene in both phases, was transcribed from a typical sigma 28-type promoter, whereas the flaB promoter was unusual. A mutant producing only the flaB gene product did not synthesize a flagellar filament and was **nonmotile**. Southern blot analysis indicated that flagellar antigenic variation involves a rearrangement of flagellin sequence information rather than the alternate expression of the two distinct genes.

Tags: Comparative Study; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Descriptors: \*Bacterial Proteins--genetics--GE; \*Campylobacter--genetics--GE; \*Flagellin--genetics--GE; \*Genes, Bacterial; Amino Acid Sequence; Base Sequence; Blotting; Western; Cloning, Molecular; DNA, Bacterial--genetics--GE; Molecular Sequence Data; Mutation; Nucleic Acid Hybridization; Plasmids; Promoter Regions (Genetics); Restriction Mapping; Sequence Homology, Nucleic Acid; Variation (Genetics)

Molecular Sequence Databank No.: GENBANK/M35141

CAS Registry No.: 0 (Bacterial Proteins); 0 (DNA, Bacterial); 0 (Plasmids); 12777-81-0 (Flagellin)

Record Date Created: 19900502

4/9/23 (Item 23 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

07044219 93297967 PMID: 8517729

**Role of Campylobacter jejuni flagella as colonization factors for three-day-old chicks: analysis with flagellar mutants.**

Nachamkin I; Yang XH; Stern NJ

Department of Pathology, University of Pennsylvania School of Medicine,  
Philadelphia 19104-4283.

Applied and environmental microbiology (UNITED STATES) May 1993, 59  
(5) p1269-73, ISSN 0099-2240 Journal Code: 6K6

Contract/Grant No.: AI-24122, AI, NIAID

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Campylobacter jejuni, an important cause of human gastrointestinal infection, is a major food-borne pathogen in the United States and worldwide. Since poultry becomes colonized and/or contaminated during the early stages of production and is a major food-borne source for this organism, we studied the role of C. jejuni flagella on the ability of the bacterium to colonize the chicken gastrointestinal tract. Three-day-old chicks were orally challenged with a motile wild-type strain of C. jejuni IN9 or with flagellar mutants created from IN9 by disrupting the flagellin genes with a kanamycin resistance cassette by using shuttle mutagenesis (A. Labigne-Roussel, P. Courcoux, and L. Tompkins, J. Bacteriol. 170:1704-1708, 1988). One mutant, IN9-N3, lacked flagella and was **nonmotile**. The other, IN9-N7, produced a truncated flagellum and was partially motile. Three-day-old chicks were orally challenged with different doses of the wild-type strain and the two mutants. At challenge doses ranging from  $3.0 \times 10^4$  to  $6.6 \times 10^8$  CFU per chick, only the fully motile, wild-type strain colonized the chick ceca. Our results show that intact and motile flagella are important colonization factors for C. jejuni in chicks.

Tags: Animal; Support, U.S. Gov't, P.H.S.

Descriptors: \*Campylobacter jejuni--pathogenicity--PY; \*Flagella--physiology--PH; Campylobacter jejuni--genetics--GE; Campylobacter jejuni--growth and development--GD; Cell Movement--genetics--GE; Cell Movement--physiology--PH; Chickens--microbiology--MI; Flagella--ultrastructure--UL; Flagellin--genetics--GE; Gastrointestinal System--microbiology--MI; Genes, Bacterial; Microscopy, Electron; Mutagenesis, Insertional

CAS Registry No.: 12777-81-0 (Flagellin)

Gene Symbol: ist/GeneSymbol flaA; ist/GeneSymbol flaB

Record Date Created: 19930721

4/9/24 (Item 24 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

07041519 93293313 PMID: 8514397

**A Campylobacter jejuni homolog of the LcrD/FlbF family of proteins is necessary for flagellar biogenesis.**

Miller S; Pesci EC; Pickett CL

Department of Microbiology and Immunology, Chandler Medical Center, University of Kentucky, Lexington 40536-0084.

Infection and immunity (UNITED STATES) Jul 1993, 61 (7) p2930-6,  
ISSN 0019-9567 Journal Code: GO7

Contract/Grant No.: AI-27908, AI, NIAID

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

A Campylobacter jejuni homolog of the lcrD/flbF family of genes was cloned and sequenced. The nucleotide sequence of the gene, called flbA, predicted a protein of 78,864 Da, with significant homology to a group of related proteins including the Yersinia pestis LcrD, Salmonella typhimurium InvA, and Caulobacter crescentus FlbF proteins. The greatest homology was seen with the C. crescentus FlbF protein, with an overall amino acid sequence homology of 57%. An insertion mutation in the C. jejuni 81-176 flbA gene was constructed. The resultant strain did not synthesize flagellin and was **nonmotile**.

Tags: Support, U.S. Gov't, P.H.S.

Descriptors: \*Bacterial Proteins--genetics--GE; \*Campylobacter jejuni--genetics--GE; \*Flagella--physiology--PH; \*Flagellin--genetics--GE; Amino Acid Sequence; Bacterial Proteins--chemistry--CH; Bacterial Proteins--metabolism--ME; Base Sequence; Campylobacter jejuni--pathogenicity--PY; Cloning, Molecular; Genes, Bacterial; Molecular Sequence Data; Mutation; Sequence Homology, Nucleic Acid; Virulence

Molecular Sequence Databank No.: GENBANK/L12744

CAS Registry No.: 0 (Bacterial Proteins); 0 (flbA protein);



12777-81-0 (Flagellin)  
Gene Symbol: ist/GeneSymbol flbA  
Record Date Created: 19930722

4/9/30 (Item 30 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
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06128614 86036135 PMID: 4056739

**Motility as an intestinal colonization factor for Campylobacter jejuni.**

Morooka T; Umeda A; Amako K

Journal of general microbiology (ENGLAND) Aug 1985, 131 ( Pt 8)  
p1973-80, ISSN 0022-1287 Journal Code: I87

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The colonization of the intestinal tract of suckling mice by *Campylobacter jejuni* was examined by orally challenging the mice with a wild-type strain and several **nonmotile** mutant strains which were isolated after treating the wild-type strain with mutagens. The wild-type strain had colonized the lower portion of the small intestine, the caecum and the colon 2 d after inoculation. Two **nonmotile** strains, one of which (M8) had lost all the flagellar structure including the filament, the hook and the basal structure, and the other (M1) which had lost only the filament region, were both cleared from the intestinal tract 2 d after challenge. Another **nonmotile** strain (M14), which had a complete flagellar structure like that of the wild-type strain, did not colonize and was cleared from the intestinal tract like the other **nonmotile** and nonflagellated strains. One atypically motile strain (M5), which had a shorter flagellar filament than that of the wild-type strain, colonized the intestinal tract only when mice were challenged with a large inoculum. None of the mice challenged with either the wild-type or any of the mutant strains showed signs of illness. We concluded that motility is an important factor in the colonization of the intestinal tract of suckling mice by *C. jejuni*.

Tags: Animal

Descriptors: \*Campylobacter--pathogenicity--PY; \*Gastrointestinal System  
--microbiology--MI; Adhesiveness; Campylobacter--ultrastructure--UL;  
Flagella--analysis--AN; Locomotion; Mice; Microscopy, Electron; Mutation  
Record Date Created: 19851218

4/9/32 (Item 32 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
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05574354 89173302 PMID: 2466792

**Flagellin expression in Campylobacter jejuni is regulated at the transcriptional level.**

Nuijten PJ; Bleumink-Pluym NM; Gaastra W; van der Zeijst BA

Department of Bacteriology, School of Veterinary Medicine, University of Utrecht, The Netherlands.

Infection and immunity (UNITED STATES) Apr 1989, 57 (4) p1084-8,  
ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

*Campylobacter jejuni* 81116 is able to switch flagellum formation on and off. To study the expression of flagellin, the main component of flagella, an expression library of *C. jejuni* DNA was constructed in lambda gt11. Screening of this library with a flagellin-specific antiserum resulted in a clone producing a beta-galactosidase-flagellin fusion protein; it contained a DNA insert of 850 base pairs and coded for about 15 kilodaltons of the flagellin, corresponding to 410 base pairs of the flagellin gene. To study the regulation of the on-and-off switch of flagellum production, a

**nonmotile** variant was isolated from semisolid medium. Western blots (immunoblots) showed the absence of flagellin in the **nonmotile** form. Southern blots of digested DNA of both motile, flagellate bacteria and **nonmotile**, aflagellate bacteria were identical, while Northern (RNA) blot analysis showed the absence of flagellin mRNA in the aflagellate form. Thus, it is concluded that reversible flagellin expression is regulated at the transcriptional level. Southern blots suggest that more than one flagellin gene is present. The structure and function of campylobacter flagellin can now be further investigated at the DNA level.

Descriptors: \*Bacterial Proteins--genetics--GE; \*Campylobacter fetus--genetics--GE; \*Flagellin--genetics--GE; \*Gene Expression Regulation; \*Genes, Bacterial; \*Transcription, Genetic; Campylobacter fetus--physiology--PH; Cell Movement; Cloning, Molecular; Flagellin--biosynthesis--BI; Flagellin--metabolism--ME; RNA, Bacterial--isolation and purification--IP  
CAS Registry No.: 0 (Bacterial Proteins); 0 (RNA, Bacterial); 12777-81-0 (Flagellin)  
Record Date Created: 19890505

4/9/34 (Item 34 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2001 Dialog Corporation. All rts. reserv.

04559208 84201208 PMID: 6721298

**Persistent Campylobacter jejuni infection in an immunocompromised patient.**

Johnson RJ; Nolan C; Wang SP; Shelton WR; Blaser MJ  
Annals of internal medicine (UNITED STATES) Jun 1984, 100 (6) p832-4  
ISSN 0003-4819 Journal Code: 5A6  
Languages: ENGLISH  
Document type: Journal Article  
Record type: Completed  
Subfile: AIM; INDEX MEDICUS

Recurrent bacteremia and enteritis due to a specific serotype of Campylobacter jejuni occurred over a 12-month period in a patient on hemodialysis with systemic lupus erythematosus who was also **deficient** in serum IgA and IgM. A bactericidal defect in the patient's sera for C. jejuni was shown. A role for immunoglobulins in the host response to C. jejuni is suggested, in that the IgA deficiency may have predisposed the patient to chronic gastrointestinal carriage and because the resolution of the bacteremia corresponded with the delayed appearance in the blood of IgG specific for the infecting strain.

Tags: Case Report; Female; Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

Descriptors: \*Campylobacter Infections--etiology--ET; \*Lupus Erythematosus, Systemic--complications--CO; Adult; Antibodies, Bacterial--analysis--AN; Blood Bactericidal Activity; Campylobacter Infections--immunology--IM; Campylobacter fetus--immunology--IM; Enteritis--etiology--ET; IgA--analysis--AN; IgA--deficiency--DF; IgM--deficiency--DF; Lupus Erythematosus, Systemic--immunology--IM; Recurrence; Septicemia--etiology--ET

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (IgA); 0 (IgM)  
Record Date Created: 19840618

4/9/35 (Item 35 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
(c) format only 2001 Dialog Corporation. All rts. reserv.

04264444 82133356 PMID: 7059067

**Campylobacter enteritis in immune- deficient patients.**

Ahnen DJ; Brown WR  
Annals of internal medicine (UNITED STATES) Feb 1982, 96 (2) p187-8,  
ISSN 0003-4819 Journal Code: 5A6  
Contract/Grant No.: AM0738, AM, NIADDK; RR-0051, RR, NCRR  
Languages: ENGLISH  
Document type: Journal Article

Record type: Completed  
Subfile: AIM; INDEX MEDICUS  
Tags: Case Report; Female; Human; Male; Support, U.S. Gov't, Non-P.H.S.;  
Support, U.S. Gov't, P.H.S.  
Descriptors: \*Agammaglobulinemia--complications--CO; \*Campylobacter  
Infections--complications--CO; \*Enteritis--complications--CO; Diarrhea  
--etiology--ET; Middle Age; Proctitis--complications--CO  
Record Date Created: 19820420

4/9/36 (Item 36 from file: 155)  
DIALOG(R) File 155:MEDLINE(R)  
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03959326 84258354 PMID: 6430392  
Campylobacter infection mimicking Crohn's disease in an immuno-  
deficient patient.  
Green ES; Parker NE; Gellert AR; Beck ER  
British medical journal (ENGLAND) Jul 21 1984, 289 (6438) p159-60,  
ISSN 0267-0623 Journal Code: B4X  
Languages: ENGLISH  
Document type: Journal Article  
Record type: Completed  
Subfile: AIM; INDEX MEDICUS  
Tags: Case Report; Human; Male  
Descriptors: \*Campylobacter Infections--diagnosis--DI; \*Crohn Disease  
--diagnosis--DI; \*Immunologic Deficiency Syndromes--complications--CO;  
Campylobacter Infections--complications--CO; Diagnosis, Differential;  
Diarrhea--etiology--ET; Middle Age  
Record Date Created: 19840824

4/9/39 (Item 3 from file: 5)  
DIALOG(R) File 5:Biosis Previews(R)  
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09321003 BIOSIS NO.: 199497329373  
The role of flagella of Campylobacter jejuni in the colonization in the  
intestinal tract of mice and the cultured-cell infectivity.  
AUTHOR: Yanagawa Yoshitoki; Takahashi Masaki; Itoh Takeshi  
AUTHOR ADDRESS: Tokyo Metropolitan Res. Lab. Public Health, Tokyo\*\*Japan  
JOURNAL: Japanese Journal of Bacteriology 49 (2):p395-403 1994  
ISSN: 0021-4930  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: Japanese; Non-English  
SUMMARY LANGUAGE: Japanese; English

ABSTRACT: For analyzing the role of the bacterial flagella in colonization  
in the intestinal tract of mice and adhering to or invading the Intestine  
407 cell, a nonflagellated, **nonmotile** mutant was induced by ultraviolet  
irradiation of a flagellated, motile wild-type strain of Campylobacter  
jejuni CF84-340. There was no great difference in the cellular  
infectivity to the Intestine 407 cells between the wild-type and the  
mutant strains. Cellular adherence and invasiveness were then compared by  
fluorescent antibody staining, and an obvious difference was found in the  
latter. While 21.4% of the organisms of the wild-type strain invaded the  
cells, only 6.1% of those of the flagella-defective mutant did so. In the  
experiments in mice involving oral administration, cellular invasiveness  
was not found with the flagella-defective mutant and no organisms were  
detected from the blood, although bacteremia is one of the  
characteristics of infection with C. jejuni. Moreover, no intestinal  
adherence of the mutant was detected, suggesting early elimination of the  
organism administered. These results indicate that the bacterial flagella  
are concerned in not only the cellular adherence and intestinal deposit,  
but also the intracellular invasiveness and invasion into the blood  
stream from the intestinal wall in the infected mice.

DESCRIPTORS:

MAJOR CONCEPTS: Cell Biology; Gastroenterology (Human Medicine, Medical Sciences); Hematology (Human Medicine, Medical Sciences); Infection; Physiology

BIOSYSTEMATIC NAMES: Aerobic Helical or Vibrioid Gram-Negatives--Eubacteria, Bacteria; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia

ORGANISMS: aerobic helical or vibrioid gram-negative bacteria (Aerobic Helical or Vibrioid Gram-Negatives); Campylobacter jejuni (Aerobic Helical or Vibrioid Gram-Negatives); INTESTINE 407 (Hominidae)--cell line

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): animals; bacteria; chordates; eubacteria; humans; mammals; microorganisms; primates; vertebrates

MISCELLANEOUS TERMS: ADHERENCE; BLOODSTREAM PENETRATION; INTESTINAL WALL TRANSLOCATION; INVASIVENESS; VIRULENCE FACTOR

CONCEPT CODES:

02506 Cytology and Cytochemistry-Animal  
12100 Movement (1971- )  
14006 Digestive System-Pathology  
15006 Blood, Blood-Forming Organs and Body Fluids-Blood, Lymphatic and Reticuloendothelial Pathologies  
30500 Morphology and Cytology of Bacteria  
36002 Medical and Clinical Microbiology-Bacteriology

BIOSYSTEMATIC CODES:

06210 Aerobic Helical or Vibrioid Gram-Negatives (1992- )  
86215 Hominidae

4/9/42 (Item 6 from file: 5)

DIALOG(R) File 5: Biosis Previews(R)

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04210081 BIOSIS NO.: 000077036125

CAMPYLOBACTER-FETUS-SSP-JEJUNI ENTERITIS IN NORMAL AND IMMUNO DEFICIENT CHILDREN

AUTHOR: MELAMED I; BUJANOVER Y; IGRA Y S; SCHWARTZ D; ZAKUTH V; SPIRER Z

AUTHOR ADDRESS: PEDIATR. DEP., ROKACH HADASSAH HOSP., PO BOX 51, 61000

TEL-AVIV, ISRAEL.

JOURNAL: AM J DIS CHILD 137 (8). 1983. 752-753. 1983

FULL JOURNAL NAME: American Journal of Diseases of Children

CODEN: AJDCA

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: Over 16 mo., 51 cases of C. fetus ssp. jejuni gastroenteritis in children were diagnosed. Five of the children were previously known to be immunodeficient: 2 had X-linked agammaglobulinemia, 1 agammaglobulinemia, 1 combined immunodeficiency and 1 transient hypogammaglobulinemia. Average duration of fever and diarrhea was longer in the 5 immunodeficient children (15 and 23 days, respectively) compared with the normal children (4 and 5 days, respectively). Excretion of C. fetus ssp. jejuni in stools persisted for 20-27 days in 4 of the immunodeficient children and for 1 yr in the 5th; normal children excreted C. fetus ssp. jejuni for 4-16 days. C. fetus jejuni may be added to the list of bacterial pathogens most likely to infect immunodeficient children, especially those with a defect of the humoral system.

DESCRIPTORS: X LINKED AGAMMA GLOBULINEMIA COMBINED IMMUNO DEFICIENCY  
TRANSIENT HYPO GAMMA GLOBULINEMIA HUMORAL SYSTEM DEFECT FEVER DURATION  
DIARRHEA DURATION FECAL SHEDDING DURATION

CONCEPT CODES:

14006 Digestive System-Pathology  
25000 Pediatrics  
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal  
34508 Immunology and Immunochemistry-Immunopathology, Tissue Immunology  
36002 Medical and Clinical Microbiology-Bacteriology

- 03508 Genetics and Cytogenetics-Human
- 10064 Biochemical Studies-Proteins, Peptides and Amino Acids
- 10068 Biochemical Studies-Carbohydrates
- 12503 Pathology, General and Miscellaneous-Comparative (1970- )
- 12504 Pathology, General and Miscellaneous-Diagnostic
- 12508 Pathology, General and Miscellaneous-Inflammation and  
Inflammatory Disease
- 13004 Metabolism-Carbohydrates
- 13012 Metabolism-Proteins, Peptides and Amino Acids
- 13020 Metabolism-Metabolic Disorders
- 14001 Digestive System-General; Methods
- 15006 Blood, Blood-Forming Organs and Body Fluids-Blood, Lymphatic and  
Reticuloendothelial Pathologies
- 23006 Temperature: Its Measurement, Effects and Regulation-Hypothermia,  
Hyperthermia
- 23007 Temperature: Its Measurement, Effects and  
Regulation-Thermopathology (1971- )
- 37010 Public Health-Public Health Administration and Statistics
- 37400 Public Health: Microbiology

BIOSYSTEMATIC CODES:

- 04610 Spirillaceae (1979- )
- 86215 Hominidae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

- Microorganisms
- Bacteria
- Animals
- Chordates
- Vertebrates
- Mammals
- Primates
- Humans

4/9/44 (Item 8 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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03429659 BIOSIS NO.: 000023002747

CAMPYLOBACTER-FETUS-SSP-JEJUNI ENTERITIS IN IMMUNO DEFICIENT PATIENTS

AUTHOR: AHNEN D J; BROWN W R

AUTHOR ADDRESS: GASTROENTEROL. SECTION 1055 CLERMONT ST., DENVER, COLO.

JOURNAL: ANN INTERN MED 96 (2). 1982. 187-188. 1982

FULL JOURNAL NAME: Annals of Internal Medicine

CODEN: AIMEA

RECORD TYPE: Citation

LANGUAGE: ENGLISH

DESCRIPTORS: DIARRHEA COLITIS ILEITIS

CONCEPT CODES:

- 14006 Digestive System-Pathology
- 34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal
- 34508 Immunology and Immunochemistry-Immunopathology, Tissue Immunology
- 36002 Medical and Clinical Microbiology-Bacteriology
- 12508 Pathology, General and Miscellaneous-Inflammation and  
Inflammatory Disease
- 14001 Digestive System-General; Methods
- 34502 Immunology and Immunochemistry-General; Methods

BIOSYSTEMATIC CODES:

- 04610 Spirillaceae (1979- )
- 86215 Hominidae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

- Microorganisms
- Bacteria
- Animals
- Chordates
- Vertebrates
- Mammals
- Primates

Humans

4/9/45 (Item 1 from file: 73)  
DIALOG(R) File 73:EMBASE  
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06959410 EMBASE No: 1997243979

**The flgE gene of Campylobacter coli is under the control of the alternative sigma factor sigmasup 5sup 4**

Kinsella N.; Guerry P.; Cooney J.; Trust T.J.  
T.J. Trust, Astra Research Centre, Cambridge, MA 02139 United States  
AUTHOR EMAIL: Tjtrust@aol.com  
Journal of Bacteriology ( J. BACTERIOL. ) (United States) 1997, 179/15  
(4647-4653)  
CODEN: JOBAA ISSN: 0021-9193  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 51

The flgE gene encoding the flagellar hook protein of Campylobacter coli VC167-T1 was cloned by immunoscreening of a genomic library constructed in lambdaZAP Express. The flgE DNA sequence was 2,553 bp in length and encoded a protein with a deduced molecular mass of 90,639 Da. The sequence had significant homology to the 5' and 3' sequences of the flgE genes of Helicobacter pylori, Treponema phagedenis, and salmonella typhimurium. Primer extension analysis indicated that the VC167 flgE gene is controlled by a sigmasup 5sup 4 promoter. PCR analysis showed that the flgE gene size and the 5' and 3' DNA sequences were conserved among C. coli and C. jejuni strains. Southern hybridization analyses confirmed that there is considerable sequence identity among the hook genes of C. coli and C. jejuni but that there are also regions within the genes which differ. Mutants of C. coli defective in hook production were generated by allele replacement. These mutants were **nonmotile** and lacked flagellar filaments. Analyses of flgE mutants indicated that the carboxy terminus of FlgE is necessary for assembly of the hook structure but not for secretion of FlgE and that, unlike salmonellae, the lack of flgE expression does not result in repression of flagellin expression.

DRUG DESCRIPTORS:

\*bacterial dna--endogenous compound--ec; \*flagellin--endogenous compound--ec; \*sigma factor--endogenous compound--ec

MEDICAL DESCRIPTORS:

\*bacterial gene; \*campylobacter coli  
article; controlled study; dna sequence; nonhuman; priority journal;  
sequence homology

CAS REGISTRY NO.: 12777-81-0 (flagellin)

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

4/9/48 (Item 4 from file: 73)  
DIALOG(R) File 73:EMBASE  
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04850860 EMBASE No: 1991345596

**Epidemiological and clinical aspects of Campylobacter infection in children. Local experience during 4 years at Bordeaux**  
ASPECTS EPIDEMIOLOGIQUES ET CLINIQUES DE L'INFECTION A CAMPYLOBACTER  
CHEZ L'ENFANT. EXPERIENCE A BORDEAUX SUR 4 ANNEES

Sarlangue J.; Megraud F.  
Hopital des Enfants, 168 Cours de l'Argonne, F-33000 Bordeaux France  
Medecine et Maladies Infectieuses ( MED. MAL. INFECT. ) (France) 1991,  
21/SPEC. ISS. OCT. (613-615)  
CODEN: MMAIB ISSN: 0399-077X  
DOCUMENT TYPE: Journal; Conference Paper  
LANGUAGE: FRENCH SUMMARY LANGUAGE: FRENCH; ENGLISH

with single polar flagella and deoxyribonucleic acid guanine-plus-cytosine contents of 42 to 49 mol%. *Wolinella succinogenes* (Wolin et al.) comb. nov. is designated the type species of the genus, and ATCC 39543 is the type strain of *W. succinogenes*. They propose *Wolinella recta* sp. nov. (type strain, ATCC 33238) as the name for nine of the strains that formed a related but distinct group. They propose *Campylobacter concisus* sp. nov. (type strain, ATCC 33237) as the name for the 6 isolates of noncorroding, microaerophilic, gram-negative, rod-shaped bacteria that have predominantly curved cells and deoxyribonucleic acid guanine-plus-cytosine contents of 34 to 38 mol%. The description of the genus *Campylobacter* is amended to include species with deoxyribonucleic acid guanine-plus-cytosine contents of 30 to 38 mol%.

MEDICAL DESCRIPTORS:

\**eikenella corrodens*; \*periodontal disease  
taxonomy; in vitro study; human cell; animal experiment; classification;  
normal human; mouth  
MEDICAL TERMS (UNCONTROLLED): *bacteroides gracilis*; *campylobacter concisus*;  
*wolinella succinogenes*; *wolinella recta*

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology  
011 Otorhinolaryngology

4/9/52 (Item 2 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2001 Inst for Sci Info. All rts. reserv.

06116690 Genuine Article#: XV851 Number of References: 28

Title: Induction of anti-GM1 ganglioside antibodies by *Campylobacter jejuni* lipopolysaccharides

Author(s): Wirguin I (REPRINT) ; Briani C; SuturkovaMilosevic L; Fisher T; DellaLatta P; Chalif P; Latov N

Corporate Source: BEN GURION UNIV NEGEV, FAC HLTH SCI, SOROKA MED CTR, DEPT NEUROL, POB 151/IL-84101 BEER SHEVA//ISRAEL/ (REPRINT); COLUMBIA UNIV COLL PHYS & SURG, DEPT NEUROL/NEW YORK//NY/10032; HADASSAH UNIV HOSP, DEPT NEUROL/IL-91120 JERUSALEM//ISRAEL/

Journal: JOURNAL OF NEUROIMMUNOLOGY, 1997, V78, N1-2 (SEP), P138-142

ISSN: 0165-5728 Publication date: 19970900

Publisher: ELSEVIER SCIENCE BV, PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

Language: English Document Type: ARTICLE

Geographic Location: ISRAEL; USA

Subfile: CC LIFE--Current Contents, Life Sciences

Journal Subject Category: NEUROSCIENCES; IMMUNOLOGY

Abstract: A frequent association exists between acute motor neuropathy, antecedent *Campylobacter jejuni* (CJ) and anti-GM1 ganglioside antibodies. Despite the chemical and immunological similarity between CJ lipopolysaccharides (LPS) and GM1, the mechanism of induction of anti-GM1 antibodies is still unclear. We used CJ LPS to immunize rats, mice and immunodeficient mice lacking in NK, CD8+ or T-cell populations. None of these animals developed significant anti-GM1 titers. However, rats immunized with keyhole limpet hemocyanin which contains the cross-reactive sugar epitope Gal(beta 1-3)GalNAc developed high titers of IgM anti-GM1 antibodies. This occurred only after these rats were given an intraperitoneal injection of CJ LPS. These results suggest that a glycoprotein antigenic stimulus can induce B-cells which are autoreactive to ganglioside but which remain anergic. A second stimulus with a cross-reactive LPS can then overcome the anergy to induce autoantibody production. A similar mechanism may explain the occurrence of GM1 antibodies in patients after CJ enteritis. (C) 1997 Elsevier Science B.V.

Descriptors--Author Keywords: GM1 ganglioside antibodies ; *Campylobacter jejuni* ; lipopolysaccharides ; Guillain-Barre syndrome

Identifiers--KeyWord Plus(R): GUILLAIN-BARRE-SYNDROME; CELLS; ANTIGEN; POLYNEUROPATHY; AUTOANTIBODY; SPECIFICITY; TOLERANCE; INFECTION

Research Fronts: 95-1329 001 (ACUTE GUILLAIN-BARRE-SYNDROME; INTRAVENOUS IMMUNE GLOBULIN; IGG ANTIBODIES; INFLAMMATORY NEUROPATHIES)

su

95-4581 001 (MAJOR HISTOCOMPATIBILITY COMPLEX CLASS II-DEFICIENT  
MICE; CD8(+) T-CELLS; POSITIVE SELECTION)  
95-5888 001 (SOLUBLE CD14; INHIBITS LIPOPOLYSACCHARIDE INDUCTION; LPS  
BINDING)

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WIRGUIN I, 1995, V40, P307, CANCER IMMUNOL IMMUN  
YUKI N, 1990, V40, P1900, NEUROLOGY

4/9/54 (Item 4 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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03699928 Genuine Article#: PY760 Number of References: 41

**Title: ISOLATION OF MOTILE AND NONMOTILE INSERTIONAL MUTANTS-OF  
CAMPYLOBACTER-JEJUNI - THE ROLE OF MOTILITY IN ADHERENCE AND INVASION  
OF EUKARYOTIC CELLS**

Author(s): YAO RJ; BURR DH; DOIG P; TRUST TJ; NIU HY; GUERRY P  
Corporate Source: USN,MED RES INST ANNEX,ENTER DIS PROGRAM,12300 WASHINGTON  
AVE/ROCKVILLE//MD/20852; USN,MED RES INST ANNEX,ENTER DIS  
PROGRAM/ROCKVILLE//MD/20852; UNIV VICTORIA,DEPT BIOCHEM &  
MICROBIOL/VICTORIA/BC V8W 3P6/CANADA/; US FDA/WASHINGTON//DC/20204

Journal: MOLECULAR MICROBIOLOGY, 1994, V14, N5 (DEC), P883-893  
ISSN: 0950-382X

Language: ENGLISH Document Type: ARTICLE

Geographic Location: CANADA; USA

Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences

Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY; MICROBIOLOGY

Abstract: A method of insertional mutagenesis for naturally transformable organisms has been adapted from Haemophilus influenzae and applied to the study of the pathogenesis of Campylobacter jejuni. A series of kanamycin-resistant insertional mutants of C. jejuni 81-176 has been generated and screened for loss of ability to invade INT407 cells. Eight noninvasive mutants were identified which showed 18-200-fold reductions in the level of invasion compared with the parent. Three of these eight show defects in motility, and five are fully motile. The three mutants with motility defects were further characterized to evaluate the method. One mutant, K2-32, which is non-adherent and non-invasive, has an insertion of the kanamycin-resistance cassette into the flaA flagellin gene and has greatly reduced motility and a truncated flagellar filament typical of flaA mutants, The adherent



non-invasive mutants K2-37 and K2-55 are phenotypically paralysed, i.e. they have a full-length flagellar filament but are non-motile. All three mutants show an aberration in flagellar structure at the point at which the filament attaches to the cell. Mutants K2-37 and K2-55 represent overlapping deletions affecting the same gene, termed pflA (paralysed flagella). This gene encodes a predicted protein of 788 amino acid residues and a molecular weight of 90977 with no significant homology to known proteins. Site-specific insertional mutants into this open reading frame result in the same paralysed flagellar phenotype and the same invasion defects as the original mutants. The differences in adherence between the two classes of flagellar mutant suggest that flagellin can serve as a secondary adhesion, although other adhesins mediate a motility-dependent internalization process. Characterization of the mutants at the molecular level and in animal models should further contribute to our understanding of the pathogenicity of these organisms.

Identifiers--KeyWords Plus: FLAGELLIN GENES; ANTIGENIC VARIATION;

SURFACE-PROTEINS; ESCHERICHIA-COLI; HELA-CELLS; MEMBRANE;

IDENTIFICATION; MUTAGENESIS; ADHESION; INTERNALIZATION

Research Fronts: 93-3088 001 (RAT MUSCLE; PROTEIN PHOSPHATASE-1; MAJOR GLUTATHIONE TRANSFERASE)

93-5203 001 (GENE LOCUS; PROTEIN SECONDARY STRUCTURE; CONFORMATIONAL PREFERENCE FUNCTIONS; MEMBRANE TOPOLOGY; TISSUE-SPECIFIC EXPRESSION)

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4/9/55 (Item 5 from file: 34)

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2001 Inst for Sci Info. All rts. reserv.

03002031 Genuine Article#: MW002 Number of References: 10

**Title: BACTEREMIA CAUSED BY CAMPYLOBACTER SPP**

Author(s): DEGUEVARA CL; GONZALEZ J; PENA P

Corporate Source: LA PAZ HOSP,DEPT MICROBIOL,CASTELLANA 261/E-28046

MADRID//SPAIN//; LA PAZ HOSP,DEPT INTERNAL MED/E-28046 MADRID//SPAIN/

Journal: JOURNAL OF CLINICAL PATHOLOGY, 1994, V47, N2 (FEB), P174-175

ISSN: 0021-9746

Language: ENGLISH Document Type: NOTE

Geographic Location: SPAIN

Subfile: SciSearch; CC LIFE--Current Contents, Life Sciences; CC CLIN--

Current Contents, Clinical Medicine

Journal Subject Category: PATHOLOGY

Abstract: The genus Campylobacter has become increasingly recognised as the cause of various infections. Campylobacter jejuni and C coli cause acute gastroenteritis in man all over the world. C jejuni enteritis can lead to bacteraemia, but its actual incidence remains unknown.

Seven cases of bacteraemia caused by C jejuni or C coli are reported, from the blood of seven patients: five immune deficient adults; a newborn baby; and a patient who had had abdominal surgery. Patients who develop diarrhoea as a result of Campylobacter infection are at risk of bacteraemia thereafter.

Identifiers--KeyWords Plus: ENTERITIS; JEJUNI

Research Fronts: 92-2732 002 (CAMPYLOBACTER INFECTIONS; RIBOSOMAL-RNA GENE RESTRICTION FRAGMENT DIVERSITY; POULTRY BROILER FLOCKS)

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4/9/59 (Item 4 from file: 76)

DIALOG(R)File 76:Life Sciences Collection

(c) 2001 Cambridge Sci Abs. All rts. reserv.

01757552 3516259

**Molecular and structural analysis of Campylobacter flagellin**

Guerry, P.; Alm, R.A.; Power, M.E.; Trust, T.J.

Enteric Dis. Program, Nav. Med. Res. Inst., Bethesda, MD 20814, USA

**CAMPYLOBACTER JEJUNI. CURRENT STATUS AND FUTURE TRENDS.**

Nachamkin, I.; Blaser, M.J.; Tompkins, L.S.

ISBN: 1-55581-042-X

pp. 267-281 (1992)

PUBLISHER: AMERICAN SOCIETY FOR MICROBIOLOGY. WASHINGTON, DC (USA)

DOCUMENT TYPE: Book LANGUAGE: ENGLISH

SUBFILE: Microbiology Abstracts B: Bacteriology; Genetics Abstracts;

Immunology Abstracts

Together with the spiral morphology of the Campylobacter cell, the motility imparted by the flagellum appears to play an important role in both the selection and ultimate colonization of their niche in the gastrointestinal tract, the viscous mucous blanket lining the tract. In addition to this virulence role, the flagellar protein is the predominant protein antigen of the Campylobacter cell. It has been a widely held notion among Campylobacter researchers that flagellin was the serodeterminant of the heat-labile serotyping scheme developed by Lior et al. However, for C.

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 See Help News162 for details.  
 File 50:CAB Abstracts 1972-2001/Jun  
 (c) 2001 CAB International  
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 strategy and changes to the file please see Help News156.  
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S1	88	CAMPYLOBACT?/TI AND PASSIVE?/TI
S2	23	RD (unique items)
S3	0	S2/2000:2001
S4	23	S2 NOT S3
S5	69	(PASSIVE? (3N) IMMUN?) AND CAMPYLOBA?/TI

S6' 63 S5 NOT S2  
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6/9/3 (Item 3 from file: 73)  
DIALOG(R)File 73:EMBASE  
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05372423 EMBASE No: 1993140522

**Production of hyperimmune bovine colostrum against Campylobacter jejuni**  
Husu J.; Syvaola E.-L.; Ahola-Luttila H.; Kalsta H.; Sivela S.; Kosunen T.U.

Dept. Bacteriology and Serology, National Veterinary Institute, PO Box 368, SF-00101 Helsinki Finland  
Journal of Applied Bacteriology ( J. APPL. BACTERIOL. ) (United Kingdom) 1993, 74/5 (564-569)  
CODEN: JABAA ISSN: 0021-8847  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Serial immunization of dairy cows with Campylobacter jejuni resulted in an enhanced serum antibody response and production of hyperimmune colostrum in all vaccinated animals. An approximate 10-fold decrease in the Camp. jejuni-specific antibody titres in colostrum was observed within 2 d post-partum. The lyophilized colostrum concentrate fed to newborn calves resulted in a rapid increase in serum antibody response. Specific Camp. jejuni immunoglobulins could be detected in these animals for a further 10 weeks. The lyophilized hyperimmunized colostrum was very stable in vitro at different storage temperatures. It could be used for **passive immunization** to campylobacteriosis.

DRUG DESCRIPTORS:

\*bacterial vaccine--pharmacology--pd; \*bacterial vaccine--drug therapy--dt;  
\*bacterial vaccine--drug development--dv

MEDICAL DESCRIPTORS:

\*antibody response; \*bacterial infection--prevention--pc; \*bacterial infection--drug therapy--dt; \*campylobacter jejuni; \*colostrum  
animal experiment; article; cattle; controlled study; food contamination; immunization; newborn; nonhuman

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology  
037 Drug Literature Index

6/9/4 (Item 4 from file: 73)  
DIALOG(R)File 73:EMBASE  
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04767274 EMBASE No: 1991262010

**Antigenic shifts in serotype determinants of Campylobacter coli are accompanied by changes in the chromosomal DNA restriction endonuclease digestion pattern**

Mills S.D.; Kurjanczyk L.A.; Shames B.; Hennessy J.N.; Penner J.L.  
Department of Microbiology, University of Toronto, Banting Institute, 100 College Street, Toronto, Ont. M5G 1L5 Canada  
Journal of Medical Microbiology ( J. MED. MICROBIOL. ) (United Kingdom) 1991, 35/3 (168-173)  
CODEN: JMMIA ISSN: 0022-2615  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Changes in somatic (O) lipopolysaccharide (LPS) antigenic specificities of Campylobacter coli serostrains were observed after continuous laboratory subculture. Two serostrains (C. coli O34 and C. coli O48) lost O specificity and did not react with homologous or any of the available heterologous antisera. The C. coli serostrain for serogroup O5, after subculture, yielded a variant that had acquired a new specificity which was detectable with a heterologous antiserum. In a repeat experiment with the

original isolate of the O5 strain, a second variant was obtained which had not only acquired the same new determinant but had, unlike the first variant, lost reactivity with the homologous antiserum. Immunoblot experiments with homologous and heterologous antisera indicated that changes in antigenic specificity were associated with the O side chains of the LPS molecules. Results of restriction endonuclease analysis of chromosomal DNA of the variants and their parents revealed minor differences in restriction patterns which suggested that C. coli is capable of undergoing genomic re-arrangements that lead to changes in LPS specificity and structure.

DRUG DESCRIPTORS:

bacterial antigen; bacterium lipopolysaccharide; o antigen; plasmid dna; proteinase

MEDICAL DESCRIPTORS:

\*campylobacter coli; \*genetic variability; \*restriction mapping; \*serotype agar gel electrophoresis; article; human; **immunoblotting** ; **passive hemagglutination** ; polyacrylamide gel electrophoresis; priority journal; silver staining

CAS REGISTRY NO.: 9001-92-7 (proteinase)

SECTION HEADINGS:

004 Microbiology: Bacteriology, Mycology, Parasitology and Virology

6/9/12 (Item 8 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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05681562 BIOSIS NO.: 000084029967

**CAMPYLOBACTER-JEJUNI ISOLATED FROM CHILDREN WITH ACUTE DIARRHEA AND CONTROLS IN BELO HORIZONTE BRAZIL**

AUTHOR: MENDES E N; QUEIROZ D M D M; CISALPINO E O; PERES J N; PENNA F J; FIGUEIREDO FILHO P P

AUTHOR ADDRESS: DEP. CLIN. MED., FAC. MED. UFMG, AV. ALFREDO BALENA, 190, 30000 BELO HORIZONTE MG, BRASIL.

JOURNAL: REV MICROBIOL 18 (1). 1987. 25-30. 1987

FULL JOURNAL NAME: Revista de Microbiologia

CODEN: RMBGB

RECORD TYPE: Abstract

LANGUAGE: PORTUGUESE

ABSTRACT: In the last decade, Campylobacter jejuni has been recognized as an important agent of acute diarrhoea. However, in Brazil, the pertinent bibliography is scanty, especially in Belo Horizonte, where this pathology contributes for high rates of infantile morbidity and mortality. Campylobacter jejuni were searched for in feces of 98 children with acute diarrhoea and 30 children without diarrhoea (control group), all of them younger than two years, in Belo Horizonte MG, Brazil, in the period from August/82 to January/84. Using Butzler's medium, Campylobacter jejuni were isolated from 11.2% of the patients with acute diarrhoea and from 6.6% of the control group. Using **passive immune** hemolysis, only one strain (10%) could be considered LT-enterotoxin-producing and using the suckling mouse test no one strain revealed capacity to produce ST-enterotoxin. All of the tested strains of Campylobacter jejuni (11) were sensible to Erythromycin, Gentamicin, Amikacin, Kanamycin, Neomycin and Chloranphenicol and resistant to the association of Sulfamethoxazole-trimetoprim. Only one strain was resistant to Tetracycline (9.1%) and three strains were resistant to Ampilicin (27.3%). The strains isolated from patients were placed in biotype 4 (15) and biotype 1 (Skirrow & Benjamin). In the control group the strains isolated were placed in biotype 1 (Skirrow & Benjamin) and, according to the biotyping proposal of Hebert & col. (15), one strain was placed in the biotype 3 and the other in biotype 4.

DESCRIPTORS: HEAT-LABILE TOXIN HEAT-STABLE TOXIN ANTIBIOTIC SENSITIVITY BIOTYPING

CONCEPT CODES:

**Immunological relationship of the B subunits of Campylobacter jejuni and Escherichia coli heat-labile enterotoxins.**

Klipstein FA ; Engert RF

Infection and immunity (UNITED STATES) Jun 1985, 48 (3) p629-33,  
ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The application of dissociation techniques, involving gel filtration in the presence of guanidine, to a semipurified preparation of **Campylobacter jejuni** heat-labile enterotoxin yielded a material whose functional and immunological properties resemble those of the B subunits of cholera toxin and Escherichia coli heat-labile toxin (LT). The C. jejuni toxin B subunit reacted with GM1 ganglioside in an enzyme-linked immunosorbent assay, but lacked the holotoxin's cytotoxic activity in the Chinese hamster ovary tissue culture assay and its ability to cause fluid secretion in rat ileal ligated loops. The C. jejuni toxin B subunit showed lines of partial identity with the B subunits of both cholera toxin and LT in gel immunodiffusion; it appeared to be more closely related immunologically to the LT B subunit than to the cholera toxin B subunit in enzyme-linked immunosorbent assays that used antisera either to LT or to its B subunit. Rats immunized with LT B subunit were significantly protected against challenge with either the semipurified C. jejuni toxin or a viable enterotoxigenic strain of C. jejuni, although twice the immunization dosage was required to achieve protection comparable to that against the homologous toxin or viable bacteria. These observations indicate that the C. jejuni enterotoxin contains a B subunit that bears an immunological relationship with the B subunits of cholera toxin and LT.

Tags: Animal; Support, Non-U.S. Gov't

**Enzyme-linked immunosorbent assays for virulence properties of  
Campylobacter jejuni clinical isolates.**

**Klipstein FA ; Engert RF; Short HB**

Journal of clinical microbiology (UNITED STATES) Jun 1986, 23 (6)  
p1039-43, ISSN 0095-1137 Journal Code: HSH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

To evaluate the capacity of enzyme-linked immunosorbent assays (ELISAs) to identify pathogenic strains among clinical fecal isolates of **Campylobacter jejuni**, 40 consecutively obtained strains from 39 sick patients and 1 asymptomatic person were tested by respective ELISAs for enterotoxin production in culture filtrates and for the invasive virulence antigen of bacterial cells. Of the 40 strains, 14 produced the enterotoxin; 15 strains, two of which were also enterotoxigenic, were invasive; and 11 strains had no detectable virulence property. The presence or absence of these virulence properties was confirmed by the demonstration that viable cells of all 12 randomly selected enterotoxigenic or invasive strains tested, but none of 9 nonpathogenic strains tested, caused fluid secretion in rat ligated ileal loops. All 12 patients examined who were infected with an invasive strain had grossly or microscopically evident blood cells in their stools or both, whereas none of those infected with an enterotoxigenic strain had overtly bloody diarrhea, and only 1 of 8 patients examined had microscopically evident blood cells in the stool. Twelve of the invasive, five of the enterotoxigenic, and three of the nonpathogenic strains also produced small amounts of cytotoxin, but there was no correlation between cytotoxin production and an abnormal response in rat ligated ileal loops. These observations show that enterotoxin production or invasiveness or both can be detected by ELISAs in three-fourths of *C. jejuni* fecal isolates and that there is usually a relationship between the specific pathogenic property of the infecting strain and the clinical manifestations.

Tags: Human; Support, Non-U.S. Gov't

Descriptors: **Campylobacter** fetus--pathogenicity--PY; \*Enterotoxins  
--biosynthesis--BI; Adolescence; Adult; Antigens, Bacterial--analysis--AN;  
**Campylobacter** Infections--microbiology--MI; **Campylobacter** fetus  
--immunology--IM; **Campylobacter** fetus--isolation and purification--IP;  
**Campylobacter** fetus--metabolism--ME; Child; Preschool; Cytotoxins  
--biosynthesis--BI; Diarrhea--microbiology--MI; Enzyme-Linked Immunosorbent  
Assay; Feces--microbiology--MI; Middle Age; Virulence

CAS Registry No.: 0 (Antigens, Bacterial); 0 (Cytotoxins); 0  
(Enterotoxins)

Record Date Created: 19860627

3/9/2

DIALOG(R) File 155:MEDLINE(R)

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06185182 86007054 PMID: 3899937

**Pathogenic properties of Campylobacter jejuni: assay and correlation  
with clinical manifestations.**

**Klipstein FA ; Engert RF; Short H; Schenk EA**

Infection and immunity (UNITED STATES) Oct 1985, 50 (1) p43-9,  
ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The pathogenic properties of 20 strains of **Campylobacter jejuni** isolated from persons with clearly defined clinical manifestations were determined. Cell-free broth filtrates were examined for (i) enterotoxin production by Chinese hamster tissue culture assay and an enzyme-linked immunosorbent assay (ELISA) employing GM1 ganglioside and affinity-purified antiserum to Escherichia coli heat-labile toxin, (ii) cytotoxin production by Vero and HeLa cell tissue culture lines, and (iii) their ability to

cause fluid secretion in rat ligated ileal loops. Viable bacteria were examined for invasive properties by an ELISA with the immunoglobulin fraction of antiserum to Formalin-killed bacteria of an invasive strain, and by their effect on fluid secretion and morphology in rat ligated ileal loops. None of the eight isolates obtained from asymptomatic carriers had any detectable pathogenic properties. All six strains isolated from persons with bloody invasive-type diarrhea elaborated a cytotoxin; their viable bacteria had high titers in the ELISA for invasive properties and caused fluid secretion in ligated ileal loops, although consistent morphologic abnormalities and evidence of mucosal invasion, examined by immunofluorescence techniques, were not detected. All six strains isolated from persons with watery secretory-type diarrhea produced an enterotoxin, one elaborated a cytotoxin, and broth filtrates of all strains caused fluid secretion in ligated ileal loops; viable bacteria had low titers in the ELISA for invasive properties and evoked fluid secretion in ligated loops by means of enterotoxin production. These observations show (i) that a correlation exists between the pathogenic properties of the infective *C. jejuni* strain and gastrointestinal manifestations in the infected host, and (ii) that these pathogenic properties can be identified by in vitro assays, including ELISAs.

Tags: Animal; Human; Support, Non-U.S. Gov't

Descriptors: **Campylobacter** Infections--microbiology--MI; \*  
**Campylobacter** fetus--pathogenicity--PY; \*Diarrhea--microbiology--MI;  
Bacterial Toxins--immunology--IM; Biological Assay; Cattle; Cytotoxins  
--biosynthesis--BI; Enterotoxins--biosynthesis--BI; Enterotoxins--immunology--IM; Enzyme-Linked Immunosorbent Assay; *Escherichia coli*--immunology--IM  
; Immunization; Rabbits; Water-Electrolyte Balance  
CAS Registry No.: 0 (Bacterial Toxins); 0 (Cytotoxins); 0  
(Enterotoxins); 0 (enterotoxin LT)  
Record Date Created: 19851029

3/9/3

DIALOG(R) File 155:MEDLINE(R)

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04994382 85206293 PMID: 3922890

**Immunological relationship of the B subunits of *Campylobacter jejuni* and *Escherichia coli* heat-labile enterotoxins.**

**Klipstein FA** ; Engert RF

Infection and immunity (UNITED STATES) Jun 1985, 48 (3) p629-33,  
ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The application of dissociation techniques, involving gel filtration in the presence of guanidine, to a semipurified preparation of ***Campylobacter jejuni*** heat-labile enterotoxin yielded a material whose functional and immunological properties resemble those of the B subunits of cholera toxin and *Escherichia coli* heat-labile toxin (LT). The *C. jejuni* toxin B subunit reacted with GM1 ganglioside in an enzyme-linked immunosorbent assay, but lacked the holotoxin's cytotoxic activity in the Chinese hamster ovary tissue culture assay and its ability to cause fluid secretion in rat ileal ligated loops. The *C. jejuni* toxin B subunit showed lines of partial identity with the B subunits of both cholera toxin and LT in gel immunodiffusion; it appeared to be more closely related immunologically to the LT B subunit than to the cholera toxin B subunit in enzyme-linked immunosorbent assays that used antisera either to LT or to its B subunit. Rats immunized with LT B subunit were significantly protected against challenge with either the semipurified *C. jejuni* toxin or a viable enterotoxigenic strain of *C. jejuni*, although twice the immunization dosage was required to achieve protection comparable to that against the homologous toxin or viable bacteria. These observations indicate that the *C. jejuni* enterotoxin contains a B subunit that bears an immunological relationship with the B subunits of cholera toxin and LT.

Tags: Animal; Support, Non-U.S. Gov't



Descriptors: Bacterial Toxins--immunology--IM; \* **Campylobacter** fetus  
--immunology--IM; \*Enterotoxins--immunology--IM; Cholera Toxin--immunology  
--IM; Enzyme-Linked Immunosorbent Assay; Immunization; Immunodiffusion;  
Rats; Rats, Inbred Strains  
CAS Registry No.: 0 (Bacterial Toxins); 0 (Enterotoxins); 0  
(enterotoxin LT); 9012-63-9 (Cholera Toxin)  
Record Date Created: 19850710

3/9/4

DIALOG(R) File 155:MEDLINE(R)

(c) format only 2001 Dialog Corporation. All rts. reserv.

04799010 85035438 PMID: 6149368

**Enterotoxigenic Campylobacter jejuni among children in South India.**

Mathan VI; Rajan DP; **Klipstein FA** ; Engert RF

Lancet (ENGLAND) Oct 27 1984, 2 (8409) p981, ISSN 0140-6736

Journal Code: L0S

Languages: ENGLISH

Document type: Letter

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Tags: Human

Descriptors: **Campylobacter** fetus--metabolism--ME; \*Enterotoxins  
--biosynthesis--BI; Adolescence; Carrier State--microbiology--MI; Child;  
Child, Preschool; Diarrhea, Infantile--microbiology--MI; India

CAS Registry No.: 0 (Enterotoxins)

Record Date Created: 19841130

3/9/5

DIALOG(R) File 155:MEDLINE(R)

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04797511 84218149 PMID: 6144853

**Purification of Campylobacter jejuni enterotoxin.**

**Klipstein FA** ; Engert RF

Lancet (ENGLAND) May 19 1984, 1 (8386) p1123-4, ISSN 0140-6736

Journal Code: L0S

Languages: ENGLISH

Document type: Letter

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Tags: Human

Descriptors: **Campylobacter** fetus; \*Endotoxins --isolation and  
purification--IP; **Campylobacter** fetus--metabolism--ME; Diarrhea,  
Infantile--microbiology--MI; Infant; Methods

CAS Registry No.: 0 (Endotoxins)

Record Date Created: 19840625

3/9/6

DIALOG(R) File 155:MEDLINE(R)

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03860727 84263443 PMID: 6746090

**Properties of crude Campylobacter jejuni heat-labile enterotoxin.**

**Klipstein FA** ; Engert RF

Infection and immunity (UNITED STATES) Aug 1984, 45 (2) p314-9,

ISSN 0019-9567 Journal Code: G07

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The amount of crude **Campylobacter** jejuni enterotoxin present in culture  
products was quantitated by comparing the response of these preparations  
with that of pure Escherichia coli heat-labile toxin (LT) in the Chinese

hamster ovary assay and in enzyme-linked immunosorbent assays that used GM ganglioside or antisera to LT or both. Maximum C. jejuni enterotoxin production was achieved by growth at 42 degrees C for 24 h under agitation in supplemented GC medium. Adding polymyxin separately to either the broth supernatant or the cells enhanced the recovery of toxin; the yield from cell lysates was much lower. The quantity of C. jejuni enterotoxin produced by clinical isolates obtained locally or provided from Mexico varied widely, over a spectrum from none to large amounts; quantitative values for the amount of C. jejuni enterotoxin determined by the Chinese hamster ovary and enzyme-linked immunosorbent assays correlated with the degree of secretory potency of this material in ligated rat ileal loops. The cytotoxic activity of C. jejuni enterotoxin in Chinese hamster ovary cells was abolished by heating at 96 degrees C for 10 min and by preincubation either with GM ganglioside or with LT or cholera toxin antisera. The secretory activity of C. jejuni enterotoxin in ligated rat ileal loops was passively neutralized by antiserum to LT, and immunizing rats with either LT or its B subunit significantly (P less than 0.001) reduced fluid response to active challenge with C. jejuni enterotoxin in ligated ileal loops. These observations indicate that strains of C. jejuni vary in their capacity to elaborate a heat-labile enterotoxin that has close immunological homology with LT and cholera toxin.

Tags: Animal; Support, Non-U.S. Gov't

Descriptors: Bacterial Toxins--isolation and purification--IP; \***Campylobacter** fetus--immunology--IM; \*Enterotoxins --isolation and purification--IP; Bacterial Toxins--biosynthesis--BI; Bacterial Toxins --immunology--IM; Biological Assay; **Campylobacter** fetus--physiology--PH; Cross Reactions; Enterotoxins--biosynthesis--BI; Enterotoxins--immunology --IM; Enzyme-Linked Immunosorbent Assay; Gangliosides--immunology--IM; Hamsters; Macromolecular Systems; Rats

CAS Registry No.: 0 (Bacterial Toxins); 0 (Enterotoxins); 0 (Gangliosides); 0 (Macromolecular Systems); 0 (enterotoxin LT)

Record Date Created: 19840906

?logoff hold

**Isolation and characterization of two Campylobacter glycine-extracted proteins that bind to HeLa cell membranes.**

Kervella M; Pages JM; Pei Z; Grollier G; Blaser MJ ; Fauchere JL

Laboratoire de Bacteriologie, Faculte de Medecine Necker-Enfants Malades, Paris, France.

Infection and immunity (UNITED STATES) Aug 1993, 61 (8) p3440-8,  
ISSN 0019-9567 Journal Code: GO7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Two immunogenic proteins of 27 (CBF1) and 29 (CBF2) kDa from enteropathogenic **Campylobacter** species appear to bind to mammalian cells. We purified these two proteins from a pathogenic and adherent **Campylobacter jejuni** strain to homogeneity by using acid extraction, preparative gel electrophoresis, and electroelution. **Polyclonal** rabbit **antisera** to these proteins were prepared. Immunologic studies indicate that CBF1 corresponds to the PEB1 and CBF2 corresponds to the PEB4 described by Pei et al. (Z. Pei, R. T. Ellison, and M. Blaser, J. Biol. Chem. 226:16363-16369, 1991). Immunogold labeling of a C. jejuni adherent strain with anti-CBF1, anti-CBF2, and anti-PEB1 suggested that CBF1 (PEB1) is surface exposed while CBF2 (PEB4) is not. Analysis of whole-cell extracts from 14 strains by sodium dodecyl sulfate (SDS)-polyacrylamide gel electrophoresis with 7 M urea and **immunoblotting** with **antisera** to CBF1 and CBF2 suggests that CBF proteins from adherent and nonadherent strains are different. Use of purified proteins in a microassay of adherence to cellular membranes indicated that CBF1 was much more adherent than CBF2. Adherence of C. jejuni to viable HeLa cells was markedly reduced with the antiserum to CBF1, whereas the CBF2 antiserum was a poor inhibitor. Purified CBF1 competitively inhibited adherence of whole bacteria to HeLa cells, whereas purified CBF2 was no better a competitor than bovine serum albumin. Adherence of CBF2 was markedly reduced in the presence of Tween 20 or SDS, whereas adherence of CBF1 was reduced only by SDS. We conclude that (i) CBF1 (PEB1) is surface exposed and may be the key protein for C. jejuni adhesion and (ii) CBF2 (PEB4) may be complexed with CBF1 and may passively coadhere with CBF1 under certain experimental conditions. Adherent and nonadherent strains contain different isotypes of these two proteins which could be useful markers of C. jejuni adhesion.

Tags: Human; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.

**Toxin production by Campylobacter spp.**

**Wassenaar TM**

Institute of Medical Microbiology and Hygiene, University of Mainz,  
Germany. wassen@medizin.uni-mainz.de

Clinical microbiology reviews (UNITED STATES) Jul 1997, 10 (3)  
p466-76, ISSN 0893-8512 Journal Code: CMR

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Of all the virulence factors that were proposed for **Campylobacter jejuni** and related species to cause disease in humans, the discovery of toxin production was the most promising but led to a rather confusing and even disappointing stream of data. The discussion of whether proteinaceous exotoxins are relevant in disease remains open. One important reason for this lack of consensus is the anecdotal nature of the literature reports. To provide a basis for an unbiased opinion, this review compiles all described exotoxins, compares their reported properties, and provides a summary of animal model studies and clinical data. The toxins are divided into enterotoxins and cytotoxins and are sorted according to their biochemical properties. Since many **Campylobacter** toxins have been compared with toxins of other species, some key examples of the latter are also discussed. Future directions of toxin research that appear promising are defined.

coli VC167, cells producing antigenically different T1 and T2 flagella both serotyped as LI08. We exploited the previously observed high degree of homology among campylobacter flagellin genes to move flagellin mutations from the VC167 background into other strains of C. jejuni and C. coli by natural transformation. Most mutants generated by transformation with VC167-B3, the flaA flaB deletion mutation, displayed a totally bald, **nonmotile** phenotype. The described antigenic variation of VC167 from T1 to T2 has not been explained at the molecular level, but clearly does not involve alternate expression of the flaA and flaB structural genes.

DESCRIPTORS: flagellin; structural analysis; molecular analysis;

Campylobacter; flagella; genes; fla gene; antigens

SECTION HEADING: 02727 -- Amino acids, peptides and proteins; 02740 --

Genetics and evolution; 07321 -- General; 06008 -- Bacterial

?t s4/3,kwic/62 63 67

>>>KWIC option is not available in file(s): 41, 399

4/3,KWIC/62 (Item 1 from file: 654)

DIALOG(R)File 654:US PAT.FULL.

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02931670

Utility

**CAMPYLOBACTERI** JEJUNI FLAGELLIN-ESCHERICHIA COLI LT-B FUSION PROTEIN  
[Antigenic fusion-protein useful for decreasing colonization in chickens]

PATENT NO.: 5,888,810

ISSUED: March 30, 1999 (19990330)

INVENTOR(s): Meinersmann, Richard J., Lithonia, GA (Georgia), US (United States of America)  
Khoury, Christian A., Philadelphia, PA (Pennsylvania), US (United States of America)

ASSIGNEE(s): The United States of America as represented by the Secretary of Agriculture, (A U.S. Government Agency), Washington, DC (District of Columbia, US (United States of America))  
[Assignee Code(s): 86512]

EXTRA INFO: Assignment transaction [Reassigned], recorded November 17, 2000 (20001117)

APPL. NO.: 8-784,218

FILED: January 16, 1997 (19970116)

This application is a division of application Ser. No. 08-150,305 filed Nov. 12, 1993, now abandoned.

FULL TEXT: 821 lines

**CAMPYLOBACTERI** JEJUNI FLAGELLIN-ESCHERICHIA COLI LT-B FUSION PROTEIN

... intestinal tract poorly. This occurred because the organisms were rapidly eliminated from the gut. The **nonmotile** flagellate colonized the gut as successfully as the wild type strain in some cases. These...

4/3,KWIC/63 (Item 2 from file: 654)

DIALOG(R)File 654:US PAT.FULL.

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02875091

Utility

**CAMPYLOBACTER** JEJUNI FLAGELLIN/ESCHERICHIA COLI LT-B FUSION PROTEIN  
[Produced by Escherichia Coli cells that have been transformed by plasmid pBEB into which DNA sequences encoding the novel protein have been introduced; poultry vaccine]

PATENT NO.: 5,837,825

ISSUED: November 17, 1998 (19981117)

INVENTOR(s): Meinersmann, Richard J., Lithonia, GA (Georgia), US (United States of America)

States of America)  
Khoury, Christian A., Philadelphia, PA (Pennsylvania), US  
(United States of America)  
ASSIGNEE(s): The United States of America as represented by the Secretary  
of Agriculture, (A U.S. Government Agency), Washington, DC  
(District of Columbia, US (United States of America)  
[Assignee Code(s): 86512]  
EXTRA INFO: Assignment transaction [Reassigned], recorded November 17,  
2000 (20001117)  
APPL. NO.: 8-829,026  
FILED: March 31, 1997 (19970331)

This application is a continuation of application Ser. No. 08-150,305  
filed Nov. 12, 1993, now abandoned.

FULL TEXT: 819 lines

**CAMPYLOBACTER JEJUNI FLAGELLIN/ESCHERICHIA COLI LT-B FUSION PROTEIN**

... intestinal tract poorly. This occurred because the organisms were  
rapidly eliminated from the gut. The **nonmotile** flagellate colonized the  
gut as successfully as the wild type strain in some cases. These...

4/3,KWIC/67 (Item 2 from file: 442)  
DIALOG(R)File 442:AMA Journals  
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00013644  
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**The Influence of Immunity on Raw Milk -- Associated Campylobacter  
Infection (ORIGINAL CONTRIBUTIONS)**

BLASER, MARTIN J.; SAZIE, ELIZABETH; WILLIAMS, L. PAUL  
JAMA, The Journal of the American Medical Association  
January 2, 1987; 257: 43-46  
LINE COUNT: 00249 WORD COUNT: 03443

**The Influence of Immunity on Raw Milk -- Associated Campylobacter  
Infection**

**CITED REFERENCES:**

...enteritis. Gastroenterology 1986;90:1217-1222.

32. Ahnen DJ, Brown WR: Campylobacter enteritis in immune-deficient  
patients. Ann Intern Med 1982;96:187-188.

33. Johnson RJ, Wang SP, Shelton WR...

et	Items	Description
S1	20	CAMPYLOBACTER?/TI AND AUTOIMMUN?/TI
S2	12	RD (unique items)

?t s2/9/2 3 4 8

2/9/2 (Item 2 from file: 155)  
 DIALOG(R) File 155: MEDLINE(R)  
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08906860 96104356 PMID: 8544349  
 Campylobacter jejuni and autoimmune-mediated neurologic diseases:  
 pathogenesis of Guillain-Barre syndrome and Fisher's syndrome]  
 Yuki N  
 Department of Biochemistry, Faculty of Medicine, Tokyo Medical and Dental  
 University.  
 Nippon saikingaku zasshi (JAPAN) Oct 1995, 50 (4) p991-1003, ISSN  
 0021-4930 Journal Code: KHZ  
 Languages: JAPANESE  
 Document type: Journal Article; Review; Review, Tutorial  
 Record type: Completed  
 Subfile: INDEX MEDICUS  
 (41 Refs.)  
 Tags: Animal; Human  
 Descriptors: \*Autoimmune Diseases--etiology--ET; \*Campylobacter  
 Infections--immunology--IM; \*Campylobacter jejuni--immunology--IM;  
 \*Cerebellar Ataxia--etiology--ET; \*Ophthalmoplegia--etiology--ET; \*Polyradi  
 culoneuropathy--etiology--ET; \*Reflex, Abnormal; Autoantibodies--immunology  
 --IM; Campylobacter Infections--complications--CO; Epitopes; Gangliosides  
 --immunology--IM; Lipopolysaccharides--immunology--IM; Syndrome  
 CAS Registry No.: 0 (Autoantibodies); 0 (Epitopes); 0 (Gangliosides)  
 ; 0 (Lipopolysaccharides)  
 Record Date Created: 19960214

2/9/3 (Item 1 from file: 5)  
 DIALOG(R) File 5: Biosis Previews(R)  
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09942380 BIOSIS NO.: 199598397298  
 Molecular mechanisms responsible for autoimmunity induced by HSP43 of  
 Campylobacter jejuni.  
**BOOK TITLE:** The 9th International Congress of Immunology  
**AUTHOR:** Zang Xing-Xing; Ma Bao-Li; Wang Li; Bai Jun; Cao He-Nian  
**BOOK AUTHOR/EDITOR:** 9TH INTERNATIONAL CONGRESS OF IMMUNOLOGY  
**AUTHOR ADDRESS:** Shanghai Inst. Immunol., Shanghai Second Med. Univ.,  
 Shanghai 200025\*\*China  
 p404 1995  
**BOOK PUBLISHER:** 9th International Congress of Immunology, San Francisco,  
 California, USA  
**CONFERENCE/MEETING:** Meeting Sponsored by the American Association of  
 Immunologists and the International Union of Immunological Societies San  
 Francisco, California, USA July 23-29, 1995  
**RECORD TYPE:** Citation  
**LANGUAGE:** English  
**DESCRIPTORS:**  
**MAJOR CONCEPTS:** Blood and Lymphatics (Transport and Circulation);  
 Genetics; Immune System (Chemical Coordination and Homeostasis);  
 Infection; Physiology  
**BIOSYSTEMATIC NAMES:** Aerobic Helical or Vibrioid Gram-Negatives--  
 Eubacteria, Bacteria; Muridae--Rodentia, Mammalia, Vertebrata, Chordata  
 , Animalia  
**ORGANISMS:** aerobic helical or vibrioid gram-negative bacteria (Aerobic  
 Helical or Vibrioid Gram-Negatives); Campylobacter jejuni (Aerobic  
 Helical or Vibrioid Gram-Negatives); Muridae (Muridae)  
**BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):** animals; bacteria; chordates;  
 eubacteria; mammals; microorganisms; nonhuman mammals; nonhuman  
 vertebrates; rodents; vertebrates

MISCELLANEOUS TERMS: AUTOANTIBODY; AUTOIMMUNE DISEASE; DNA; DOMINANT IMMUNOGENICITY; HEAT SHOCK PROTEIN 43; HEAT SHOCK PROTEIN 60; MEETING ABSTRACT; MOLECULAR MIMICRY; RNA

CONCEPT CODES:

03506 Genetics and Cytogenetics-Animal  
15004 Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies  
15008 Blood, Blood-Forming Organs and Body Fluids-Lymphatic Tissue and Reticuloendothelial System  
31000 Physiology and Biochemistry of Bacteria  
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal  
34508 Immunology and Immunochemistry-Immunopathology, Tissue Immunology  
36002 Medical and Clinical Microbiology-Bacteriology  
00520 General Biology-Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals  
02506 Cytology and Cytochemistry-Animal  
10062 Biochemical Studies-Nucleic Acids, Purines and Pyrimidines  
10064 Biochemical Studies-Proteins, Peptides and Amino Acids  
10068 Biochemical Studies-Carbohydrates

BIOSYSTEMATIC CODES:

06210 Aerobic Helical or Vibrioid Gram-Negatives (1992- )  
86375 Muridae

2/9/4 (Item 2 from file: 5)

DIALOG(R) File 5: Biosis Previews(R)  
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08972698 BIOSIS NO.: 199396124199

**Suppression of polyglycosides of Tripterygium wilfordii Hook on autoimmunity induced by Campylobacter jejuni.**

AUTHOR: Sun Bing; Ma Bao-Li; Xie Ya-Li

AUTHOR ADDRESS: Dep. Pharmacol., Sch. Pharm., Shanghai Med. Univ., Shanghai 200032\*\*China

JOURNAL: Zhongguo Yaolixue Yu Dulixue Zazhi 7 (3):p190-192 1993

ISSN: 1000-3002

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: Chinese; Non-English

SUMMARY LANGUAGE: Chinese; English

ABSTRACT: Polyglycosides of Tripterygium wilfordii Hook (T-II, 20 mg cntdot kg-1 cntdot d-1 times 21 d, ig) treatment had a suppressive action on autoimmunity induced by Campylobacter jejuni infection. T-II inhibited the enhanced formation of PFC, anti-ds-DNA antibody and lymphocyte proliferation with and without concanavalin A in the infected mice, and rendered the increased ratio of L3T4+/Lyt2+ to normal. The results indicate that T-II can play an important role in treatment of autoimmune diseases by keeping the balance of the ratio of the L3T4+/Lyt2+.

DESCRIPTORS:

MAJOR CONCEPTS: Blood and Lymphatics (Transport and Circulation); Cell Biology; Immune System (Chemical Coordination and Homeostasis); Infection; Metabolism; Pathology; Pharmacology

BIOSYSTEMATIC NAMES: Aerobic Helical or Vibrioid Gram-Negatives--Eubacteria, Bacteria; Celastraceae--Dicotyledones, Angiospermae, Spermatophyta, Plantae; Hominidae--Primates, Mammalia, Vertebrata, Chordata, Animalia; Micrococcaceae--Eubacteria, Bacteria; Muridae--Rodentia, Mammalia, Vertebrata, Chordata, Animalia; Pseudomonadaceae--Eubacteria, Bacteria

ORGANISMS: aerobic helical or vibrioid gram-negative bacteria (Aerobic Helical or Vibrioid Gram-Negatives); human (Hominidae); Celastraceae (Celastraceae); Muridae (Muridae); Pseudomonas aeruginosa (Pseudomonadaceae); Staphylococcus aureus (Micrococcaceae)

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA): angiosperms; animals; bacteria; chordates; dicots; eubacteria; humans; mammals; microorganisms; nonhuman mammals; nonhuman vertebrates; plants; primates; rodents; spermatophytes; vascular plants; vertebrates



\* MISCELLANEOUS TERMS: CHILD; OTITIS MEDIA

CONCEPT CODES:

02506 Cytology and Cytochemistry-Animal  
12512 Pathology, General and Miscellaneous-Therapy (1971- )  
13004 Metabolism-Carbohydrates  
13012 Metabolism-Proteins, Peptides and Amino Acids  
15008 Blood, Blood-Forming Organs and Body Fluids-Lymphatic Tissue and  
Reticuloendothelial System  
22018 Pharmacology-Immunological Processes and Allergy  
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal  
34508 Immunology and Immunochemistry-Immunopathology, Tissue Immunology  
36002 Medical and Clinical Microbiology-Bacteriology  
10060 Biochemical Studies-General  
10064 Biochemical Studies-Proteins, Peptides and Amino Acids  
10068 Biochemical Studies-Carbohydrates  
15004 Blood, Blood-Forming Organs and Body Fluids-Blood Cell Studies  
51522 Plant Physiology, Biochemistry and Biophysics-Chemical  
Constituents  
54000 Pharmacognosy and Pharmaceutical Botany

BIOSYSTEMATIC CODES:

06210 Aerobic Helical or Vibrioid Gram-Negatives (1992- )  
25775 Celastraceae  
86375 Muridae

2/9/8 (Item 1 from file: 94)

DIALOG(R)File 94:JICST-EPlus

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04163175 JICST ACCESSION NUMBER: 99A0394824 FILE SEGMENT: JICST-E

**New Aspects of Infectious Diseases and Their Treatments-Bacterial**

**Infectious Diseases. Campylobacter jejuni Enteritis and Autoimmune  
Neurological Disorders.**

KOGA MICHIAKI (1); YUKI NOBUHIRO (1)

(1) Dokkyo Univ. Sch. of Med.

Saishin Igaku, 1999, VOL.54,3gatsu zokango, PAGE.594-601, TBL.3, REF.11

JOURNAL NUMBER: Z0358AAR ISSN NO: 0370-8241 CODEN: SAIGA

UNIVERSAL DECIMAL CLASSIFICATION: 616.3 616.83/.89

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Commentary

MEDIA TYPE: Printed Publication

DESCRIPTORS: Campylobacter jejuni; bacterial infection(disease); enteritis;  
Guillain-Barre syndrome; ganglioside; autoantibody; human(primates)

BROADER DESCRIPTORS: Campylobacter; spiral and curved bacteria; bacterium;  
microorganism; infectious disease; disease; inflammation; intestinal  
disease; gastrointestinal disease; digestive system disease; neuritis;  
peripheral nerve disease; nervous system disease; paralytic disease;  
sphingoglycolipid; sphingolipid; complex lipid; lipid; glycolipid;  
isoantibody; antibody

CLASSIFICATION CODE(S): GH03000W; GN030000

?t s2/7/9 10 11

2/7/9 (Item 1 from file: 167)

DIALOG(R)File 167:Medical Device Register (R)

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FAX: 619-546-8955

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STOCK EXCHANGE: NASDAQ

PRODUCT NAME -- MEDICAL SPECIALTY NAME -- NOTES

Test, Disease, Lyme -- IMMUNOLOGY -- QUIDEL lyme disease test.  
Test, Allergy -- IMMUNOLOGY -- Allergy screen allergy test.  
Test, Fertility Monitoring -- OBSTETRICS/GYN -- CONCEIVE  
\$29.95/OVUQUICK. One-step urine assay.  
Chlamydia Trachomatis -- MICROBIOLOGY  
Antibody, Monoclonal -- MICROBIOLOGY -- MAb/enzyme immunoassay  
dipsticks.  
Kit, Pregnancy Test -- OBSTETRICS/GYN -- CONCEIVE one-step urine assay.  
Test, Infectious Mononucleosis -- IMMUNOLOGY  
Test, Human Chorionic Gonadotropin -- IMMUNOLOGY  
Antiserum, Streptococcus SPP. -- MICROBIOLOGY -- Group B strep test.  
Antigen, Streptococcus SPP. -- MICROBIOLOGY -- Group A Strep test.  
Antigen, Antiserum, Control, Luteinizing Hormone -- IMMUNOLOGY --  
Ovulation prediction test.  
**Campylobacter** Pylori -- MICROBIOLOGY -- \$110.00 for 10-test set of  
QUICKVUE ELISA-based rapid detection test of Helicobacter pylori.  
Test, Antibiotic Susceptibility -- MICROBIOLOGY -- QUIDEL autoimmune  
disorder test kits.

2/7/10 (Item 2 from file: 167)  
DIALOG(R) File 167: Medical Device Register (R)  
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Irvine, CA 92612-1517  
United States

TELEPHONE: 949-440-2000  
FAX: 949-440-2220  
CONTACT: Richard D. Hamill / COB & President  
TICKER SYMBOL: HYBD  
STOCK EXCHANGE: NASDAQ

PRODUCT NAME -- MEDICAL SPECIALTY NAME -- NOTES

Test, Radio-Allergen Absorbent (RAST) -- IMMUNOLOGY  
Control, Urinalysis (Assayed And Unassayed) -- CHEMISTRY  
Control, Drug Specific -- TOXICOLOGY -- Urine.  
**Campylobacter** Pylori -- MICROBIOLOGY -- Helicobacter. PYLORAGEN  
enzyme immunoassay test for clinical lab detection of Helicobacter  
pylori.  
Test, Allergy -- IMMUNOLOGY -- Automate instrument system for allergy  
(Specific Ig E) and Autoimmune Disease.

2/7/11 (Item 1 from file: 77)  
DIALOG(R) File 77: Conference Papers Index  
(c) 2001 Cambridge Sci Abs. All rts. reserv.

4000379  
Supplier Accession Number: 93020258 V21N03  
**Role of 67 kD outer membrane protein of Campylobacter jejuni in inducing  
autoimmunity**  
Ma, B.L.; Xia, W.L.; Gao, J.X.  
8th International Congress of Immunology 9230119 Budapest (Hungary)  
23-28 Aug 1992  
International Union of Immunological Societies  
Springer-Verlag, Budapest, Wesselenyi, utca 28, H-1075, Hungary  
Languages: ENGLISH

**Suppression of polyglycosides of Tripterygium wilfordii Hook on  
autoimmunity induced by Campylobacter jejuni.**

AUTHOR: Sun Bing; Ma Bao-Li; Xie Ya-Li

AUTHOR ADDRESS: Dep. Pharmacol., Sch. Pharm., Shanghai Med. Univ.,  
Shanghai 200032\*\*China

JOURNAL: Zhongguo Yaolixue Yu Dulixue Zazhi 7 (3):p190-192 1993

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proliferation with and without concanavalin A in the infected mice, and  
rendered the increased ratio of L3T4+/Lyt2+ to normal. The results  
indicate that T-II can play an important role in treatment of autoimmune  
diseases by keeping the balance of the ratio of the L3T4+/Lyt2+.

**Intravenous immunoglobulin treatment in children with Guillain-Barre syndrome.**

Kanra G; Ozon A; Vajsar J; Castagna L; Secmeer G; Topaloglu H  
Hacettepe University Children's Hospital, Ankara, Turkey.

European journal of paediatric neurology (ENGLAND) 1997, 1 (1) p7-12  
, ISSN 1090-3798 Journal Code: DGS

Comment in Europ J Paediatr Neurol. 1997 ;1(1) 3-5; Comment in Europ J  
Paediatr Neurol. 1998 ;2(1):57-9

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

We have retrospectively reviewed the data of 75 consecutive children diagnosed with Guillain-Barre syndrome (GBS) and hospitalized in two centres. There were 51 children with GBS treated in Ankara, Turkey and 24 patients treated in Toronto, Canada. To evaluate the effect of intravenous immunoglobulin (IVIG) treatment, the patients were divided into three groups. All 24 Canadian patients received IVIG in a dose of 1 g/kg/day for 2 days. In the Ankara group 23 children received 0.4 g/kg/day for 5 days and the remaining 28 patients in that group received supportive treatment only. In all but two patients IVIG was started within the first 2 weeks of neuropathic symptoms. The patients' data, including mean functional grades, frequency of bulbar signs and autonomic dysfunction and age were similar in all three groups. Analysis of the short-term outcome demonstrated that the patients treated with IVIG had a significantly faster rate of recovery. Mean time-lapse until improvement of one functional grade was 17.4 days in the IVIG group from Toronto, and 20.8 days in the IVIG group and 62.4 days in the non-IVIG group of patients from Ankara. We conclude that IVIG has considerable efficacy in the treatment of children with GBS. Furthermore, we have also demonstrated a faster rate of recovery in patients who received a total dose of IVIG in 2 days as opposed to 5 days.

Tags: Comparative Study; Female; Human; Male

' Current treatment in acute demyelinating polyneuropathy (Guillain-Barre syndrome)

Shorer Z

European journal of paediatric neurology (ENGLAND) 1997, 1 (1) p3-5,  
ISSN 1090-3798 Journal Code: DGS

Comment on Europ J Paediatr Neurol. 1997 ;1(1) 7-12

Languages: ENGLISH

Document type: Comment; Editorial

Record type: Completed

Subfile: INDEX MEDICUS

Tags: Human

Descriptors: Guillain-Barre Syndrome --therapy--TH; \*Immunization ,  
Passive ; Child; Treatment Outcome

Record Date Created: 20000412

**Guillain-Barre syndrome (idiopathic polyneuritis) and experimental allergic neuritis. A comparison**

Ishihara Y.

Dept. Pathol. Neuropathol., Tokyo Metrop. Inst. Neurosci., Tokyo 183

Japan

Advances in Neurological Sciences ( ADV. NEUROL. SCI. ) (Japan) 1980, 24/1 (139-156)

CODEN: SKNSA

DOCUMENT TYPE: Journal

LANGUAGE: JAPANESE SUMMARY LANGUAGE: ENGLISH

The Guillain-Barre-Strohl syndrome (GBS) is an acute paralytic disease of unknown etiology (idiopathic polyradiculoneuritis). This paralytic condition of the peripheral nervous system (PNS) is characterized by intense lymphocytic infiltration throughout the PNS, including cranial nerves, spinal roots, spinal ganglia and even autonomous peripheral nerves. The inflammatory response is perivenural in nature and actively provoked the demyelination corresponding to the foci of cellular infiltration, consequently being classified as inflammatory polyradiculoneuritis or a demyelinating disease of the PNS. GBS is a clinical entity, designated with the first clear description by Guillain, Barre, and Strohl (1916). The disorder is commonly present in antecedent acute infectious diseases, such as upper respiratory illnesses, often described as influenza-like, and digestive disturbance, with diarrhea. There is some evidence of aberrant **immune** responses and of **passive** irritation in the individual **immune** system, for instance, a GBS-like paralysis has occurred in persons after surgical treatment, some after vaccination, and followed a definite viral infection. Postvaccination paralysis, especially in antirabies vaccination, has evoked severe paralytic accidents in both CNS and PNS, in well known postvaccination encephalomyelitis and peripheral neuritis (Adaros and Held, 1971). Experimental allergic encephalomyelitis (EAE) provided a satisfactory model of these artificial demyelinating diseases, CNS-tissue antigens. Experimental allergic neuritis (EAN) is also produced by inoculation of peripheral nerve emulsions with Freund's complete adjuvant (FCA) as an analogy of EAE, first reported by Waksman and Adams (1955). EAN is a paralytic condition of peripheral nerves, clinically marks a muscular weakness, total limb paralysis, extended flat posture, etc., and a few days after onset paralysis usually reaches its maximum expression. The pathology of EAN is well established. The underlying mechanisms in immune response and allergic demyelination of EAN or GBS are not clearly known, though several possibilities may be considered. The many evidences of close correspondence between EAN animal disease and human Guillain-Barre syndrome should encourage continued immunopathological studies on this suitable model to solve the human demyelinating diseases.

**Guillain-Barre syndrome (idiopathic polyneuritis) and experimental allergic neuritis. A comparison**

Ishihara Y.

Dept. Pathol. Neuropathol., Tokyo Metrop. Inst. Neurosci., Tokyo 183

Japan

Advances in Neurological Sciences ( ADV. NEUROL. SCI. ) (Japan) 1980, 24/1 (139-156)

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**Acute idiopathic demyelinating polyneuropathy: Passive transfer to mice  
by immunoglobulin**

Dalkara T.; Onur R.; Subutay N.; Unol B.; Kucukali T.; Erbençis T.;  
Zileli T.

Department of Neurology, Faculty of Medicine, Hacettepe University,  
Ankara Turkey

NeuroReport ( NEUROREPORT ) (United Kingdom) 1990, 1/2 (145-148)

CODEN: NERPE ISSN: 0959-4965

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

Systemic administration of acute idiopathic demyelinating polyneuropathy (AIDP) immunoglobulins to mice for two weeks resulted in reduced sural nerve action potential amplitudes and reduced (rotarod) motor performance. Electron microscopic examination of the sciatic nerves of the AIDP-immunoglobulin-treated animals revealed loosening of myelin lamellae with widening of interperiod lines and multivesicular disruption of myelin. Vacuolar degeneration was detected in half of the nerves examined by light microscopy. Injection of AIDP-immunoglobulins for three days led to only minor changes, and mice receiving healthy human immunoglobulins showed no abnormalities. These data show that some features of AIDP can be transferred to mice by systemic administration of immunoglobulins and suggest that humoral factors a pathogenic role in AIDP in addition to cellular factors.



**Pathogenic antibodies in women with obstetric features of antiphospholipid syndrome who have negative test results for lupus anticoagulant and anticardiolipin antibodies**

Silver R.M.; Pierangeli S.S.; Edwin S.S.; Umar F.; Harris E.N.; Scott J.R.; Branch D.W.

Dr. R.M. Silver, Dept. of Obstetrics and Gynecology, Univ. of Utah School of Medicine, 50 N. Medical Dr., Salt Lake City, UT 84132 United States  
American Journal of Obstetrics and Gynecology ( AM. J. OBSTET. GYNECOL. )  
(United States) 1997, 176/3 (628-633)

CODEN: AJOGA ISSN: 0002-9378

DOCUMENT TYPE: Journal; Article

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 19

**OBJECTIVE:** Our goal was to determine whether women with clinical features of antiphospholipid syndrome but negative test results for lupus anticoagulant and anticardiolipin antibodies have pathogenic antibodies not identified by currently used methods. **STUDY DESIGN:** Sera were obtained from women with clinical features associated with antiphospholipid antibodies who had negative test results for lupus anticoagulant and anticardiolipin antibodies (antiphospholipid syndrome-like). We studied (1) the effect of **passive immunization** with their purified immunoglobulin G fraction on murine pregnancy (n = 35) and (2) the presence of antiphospholipid antibodies other than lupus anticoagulant or anticardiolipin antibodies (n = 39). Sera were also retested for anticardiolipin antibodies and lupus anticoagulant. **RESULTS:** Fetal loss occurred in 235 of 1088 (22%) pups in 137 mice immunized with immunoglobulin G fraction from antiphospholipid syndrome-like women compared with 23 of 402 (6%) pups in 53 control mice. Immunoglobulin G from 11 study patients resulted in the loss of at least one third of the exposed pups. Five women had positive levels of antiphosphatidylserine antibodies (>99th percentile). All levels were low positive, and three women also had low-positive levels of anticardiolipin antibodies on repeat testing. Five of the 11 (45%) women whose immunoglobulin G fractions caused at least 33% fetal loss also had positive test results for antiphospholipid antibodies. **CONCLUSIONS:** A subset of women with clinical disorders suspicious for antiphospholipid syndrome but who had negative test results for lupus anticoagulant and anticardiolipin antibodies by current methods have serum immunoglobulin G that is pathogenic to murine pregnancy. Testing for pathogenic immunoglobulin G may provide additional means to identify women with an as yet uncharacterized immune condition. The clinical relevance of low levels of antiphospholipid antibodies in these women remains unproved.

## Neurological complications of immunization

Reik L. Jr.

L. Reik Jr., Department of Neurology, Univ. of Connecticut Health Center,  
263 Farmington Avenue, Farmington, CT 06030-1840 United States

Neurological Infections and Epidemiology ( NEUROL. INFECT. EPIDEMIOL. ) ( United Kingdom) 1997, 2/2 (69-98)

CODEN: NIEPF ISSN: 1084-4759

DOCUMENT TYPE: Journal; Review

LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

NUMBER OF REFERENCES: 349

Neurological complications are among the most serious side effects of immunizations and vaccinations. A number of different reactions can occur depending on the type of vaccine given. **Passive immunization**, most often with heterologous serum, results in the multifocal vasculopathic neurological abnormalities of serum sickness. Active immunization with toxoids, inactivated whole cell and subunit vaccines, and with some live attenuated vaccines, induces various central and peripheral nervous system abnormalities that seem to share a common pathogenesis involving the immune system. These include acute disseminated encephalomyelitis, acute toxic encephalopathy, acute hemorrhagic leukoencephalitis, acute transverse myelitis, acute cerebellar ataxia, optic neuritis, brachial plexus neuritis, the Guillain- Barre syndrome, and various cranial and peripheral mononeuropathies. Active immunization with other live attenuated virus vaccines causes direct nervous system infection with the vaccine virus itself. Important examples include the oral polio, mumps, and yellow fever vaccines.

**Title: Treatment of neurological disorders with intravenous immunoglobulin.**

**Author(s):** Loscher WN; Fettweis R; Huemer M; Iglseider B; Trinkka E; Ladurner

G

**Corporate Source:** LANDESNERNENKLIN, NEUROL ABT/SALZBURG//AUSTRIA/

**Journal:** NEUROPSYCHIATRIE, 1997, V11, N4, P161-167

**Publication date:** 19970000

**Publisher:** DUSTRI-VERLAG DR KARL FEISTLE, BAHNHOFSTRABE 9 POSTFACH 49,  
W-8024 MUNCHEN-DEISENHOFEN, GERMANY

**Language:** German **Document Type:** REVIEW

**Geographic Location:** AUSTRIA

**Journal Subject Category:** NEUROSCIENCES; PSYCHIATRY

**Abstract:** Several diseases of the central and peripheral nervous system are based upon deficits of the immune system. The treatment of these diseases predominately rested upon steroids, immunosuppressive medication and plasmapheresis, all being effective to various degrees only. Furthermore, these treatments may be accompanied by severe complications and adverse effects. During the last decade, intravenous immunoglobulins have frequently been used as an alternative means to treat immunologically mediated diseases of the nervous system. Immunoglobulins have been shown to act upon several stages of the immune response, and, besides a passive transfer of anti-idiotypic antibodies, appear to be able to alter the immune response in a more general way. Furthermore, evidence is accumulating that immunoglobulins promote remyelination within the central nervous system. This review intends to critically discuss the use of intravenous immunoglobulins in the treatment of acute inflammatory polyradiculoneuritis, chronic inflammatory polyneuropathy, multifocal motor-neuropathy with conduction block, inflammatory myopathies, myasthenia gravis, Lambert-Eaton syndrome, multiple sclerosis and epilepsy.

**Descriptors--Author Keywords:** autoimmune disease ; demyelination ; immunoglobulin

**Identifiers--KeyWord Plus(R):** INFLAMMATORY DEMYELINATING POLYNEUROPATHY;  
MULTIFOCAL MOTOR NEUROPATHY; **GUILLAIN-BARRE-SYNDROME**; INCLUSION-BODY  
MYOSITIS; IMMUNE GLOBULIN; DOUBLE-BLIND; MULTIPLE-SCLEROSIS;  
MYASTHENIA-GRAVIS; PLASMA-EXCHANGE; GAMMA-GLOBULIN

**Cited References:**

**Isotype, specificity, and kinetics of systemic and mucosal antibodies to Campylobacter jejuni antigens, including flagellin, during experimental oral infections of chickens.**

Cawthraw S; Ayling R; Nuijten P; Wassenaar T; Newell DG  
Central Veterinary Laboratory (Weybridge), New Haw, Addlestone, Surrey,  
United Kingdom.

Avian diseases (UNITED STATES) Apr-Jun 1994, 38 (2) p341-9, ISSN  
0005-2086 Journal Code: 9IY

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The immune response of chickens to Campylobacter jejuni infection was studied as a step in the search for vaccine candidates. One-day-old chicks orally challenged with C. jejuni strain 81116 showed significant increases in specific IgG, IgA, and IgM circulating antibodies, as detected by enzyme-linked immunosorbent assay (ELISA). These levels peaked at 9, 5, and 7 weeks postinfection, respectively. Maternal IgG antibodies were also detected over the first 2 weeks. Specific mucosal IgG and IgA antibody levels also increased significantly. All of the birds demonstrated a major response to the 62-kDa flagellin protein by Western blotting techniques. The immunodominance of flagellin was confirmed by ELISA using an antigen preparation from an **aflagellate** mutant. When overlapping recombinant polypeptide fragments of flagellin were used, epitopes detected by chicken antibodies were observed in region IV, between residues 95-340 of the protein. Thus flagellin may be suitable candidate for a vaccine, although its role in protection must first be established.

Tags: Animal; Support, Non-U.S. Gov't

Descriptors: \*Antibodies, Bacterial--biosynthesis--BI; \*Antigens, Bacterial--immunology--IM; \*Campylobacter Infections--immunology--IM; \*Campylobacter jejuni--immunology--IM; \*Flagellin--immunology--IM; \*IgG--biosynthesis--BI; \*Immunoglobulin Isotypes--biosynthesis--BI; \*Intestinal Mucosa--immunology--IM; Antibodies, Bacterial--blood--BL; Antibodies, Bacterial--classification--CL; Antibody Specificity; Blotting, Western; Chickens; Enzyme-Linked Immunosorbent Assay; Epitopes--analysis--AN; IgG--blood--BL; IgG--classification--CL; Immunoglobulin Isotypes--classification--CL

CAS Registry No.: 0 (Antibodies, Bacterial); 0 (Antigens, Bacterial); 0 (Epitopes); 0 (IgG); 0 (Immunoglobulin Isotypes); 12777-81-0 (Flagellin)

Record Date Created: 19941129

2/9/2 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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05513028 86197665 PMID: 2422256

**Monoclonal antibodies directed against the flagella of Campylobacter jejuni: production, characterization and lack of effect on the colonization of infant mice.**

Newell DG

Journal of hygiene (ENGLAND) Apr 1986, 96 (2) p131-41, ISSN  
0022-1724 Journal Code: IEF

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

Eight monoclonal antibodies have been derived from Balb/c mice hyperimmunized with the purified flagella from Campylobacter jejuni strain 81116. These monoclonal antibodies are directed against flagella as demonstrated by reaction in ELISA against flagellate and **aflagellate** antigens, radio-immunoprecipitation and electro-immunoblotting techniques. Some of the antibodies react with a 60K minor protein as well as the 62K flagella protein. This protein may be related to an antigen expressed on the surface of the organism and detectable by immunogold labelling with one of the monoclonal antibodies. None of the antibodies causes the aggregation

of bacteria or inhibits bacterial motility, unlike polyclonal anti-flagella antiserum. Moreover, none of the antibodies tested protected infant mice from colonization with *C. jejuni* strain 81116 even though partial protection (28%) was observed with syngeneic anti-flagella anti-serum. Absence of protection is probably due to the cryptic nature of the flagella epitopes investigated or lack of antibody activity in the gastrointestinal tract.

Tags: Animal

Descriptors: \*Animals, Newborn--microbiology--MI; \*Antibodies, Monoclonal ; \*Campylobacter fetus--immunology--IM; \*Flagella--immunology--IM; Enzyme-Linked Immunosorbent Assay; Epitopes--analysis--AN; Gold; Immunization, Passive; Mice; Mice, Inbred BALB C; Movement  
CAS Registry No.: 0 (Antibodies, Monoclonal); 0 (Epitopes); 7440-57-5 (Gold)

Record Date Created: 19860603

2/9/3 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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05688408 BIOSIS NO.: 000084036813

**INTESTINAL MUCUS GEL AND SECRETORY ANTIBODY ARE BARRIERS TO**

**CAMPYLOBACTER-JEJUNI ADHERENCE TO INT 407 CELLS**

AUTHOR: MCSWEEGAN E; BURR D H; WALKER R I

AUTHOR ADDRESS: NAVAL MED. RES. INST., BETHESDA, MD. 20814.

JOURNAL: INFECT IMMUN 55 (6). 1987. 1431-1435. 1987

FULL JOURNAL NAME: Infection and Immunity

CODEN: INFIB

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: An in vitro mucus assay was developed to study the role of mucus gel and secretory immunoglobulin A (sIgA) in preventing attachment of *Campylobacter jejuni* to INT 407 cells. An overlay of rabbit small intestinal mucus was found to impede the attachment of *C. jejuni* to a monolayer of INT 407 cells. Mucus from rabbits previously colonized with *C. jejuni* was found to completely inhibit bacterial adherence to the underlying cells. Anti-*Campylobacter* sIgA was readily detected in mucus samples from previously exposed rabbits and was responsible for eliminating bacterial adherence to the INT 407 cells. This was shown by loss of inhibition after mucus absorption with *Campylobacter* cells. sIgA-containing mucus caused aggregation of the *C. jejuni* cells within the mucus layer of the assay system. Nonimmune mucus and sIgA alone were unable to cause bacterial aggregation, suggesting a cooperative role for mucus and sIgA. Antibodies responsible for adhesion inhibition were cross-reactive among several *Campylobacter* strains and were not directed solely against flagellar antigens.

DESCRIPTORS: RABBIT STRAIN CROSS-REACTIVE ANTIBODY **NONFLAGELLAR** ANTIGEN  
FLAGELLAR ANTIGEN

CONCEPT CODES:

02506 Cytology and Cytochemistry-Animal  
14004 Digestive System-Physiology and Biochemistry  
14006 Digestive System-Pathology  
30500 Morphology and Cytology of Bacteria  
34504 Immunology and Immunochemistry-Bacterial, Viral and Fungal  
36002 Medical and Clinical Microbiology-Bacteriology  
10064 Biochemical Studies-Proteins, Peptides and Amino Acids

BIOSYSTEMATIC CODES:

04610 Spirillaceae (1979- )  
86040 Leporidae

BIOSYSTEMATIC CLASSIFICATION (SUPER TAXA):

Microorganisms  
Bacteria  
Animals  
Chordates

Vertebrates

. Nonhuman Vertebrates

Mammals

Nonhuman Mammals

. Lagomorphs

**Epidemiological and clinical aspects of Campylobacter infection in children. Local experience during 4 years at Bordeaux**

ASPECTS EPIDEMIOLOGIQUES ET CLINIQUES DE L'INFECTION A **CAMPYLOBACTER**  
CHEZ L'ENFANT. EXPERIENCE A BORDEAUX SUR 4 ANNEES

Sarlangue J.; Megraud F.

Hopital des Enfants, 168 Cours de l'Argonne, F-33000 Bordeaux France  
Medecine et Maladies Infectieuses ( MED. MAL. INFECT. ) (France) 1991,  
21/SPEC. ISS. OCT. (613-615)

CODEN: MMAIB ISSN: 0399-077X

DOCUMENT TYPE: Journal; Conference Paper

LANGUAGE: FRENCH SUMMARY LANGUAGE: FRENCH; ENGLISH

The campylobacters are now regarded as one of the principal causes of bacterial intestinal tract infections, with an incidence quite similar those due to Salmonella. It is a mainly pediatric infection, which affects mostly boys (60%), the infant less than 1 year of age (25% of cases) and is usually sporadic. *C. jejuni* (75%) or *C. coli* (16%) are the most commonly involved; a higher incidence of septicemia is noted with the other more rarely isolated species. Clinical signs are mostly of digestive origin, represented principally by diarrhoea in almost all cases, associated to severe abdominal pain in the child and bloody stools especially in infants in half of cases. Infection is usually mild with a benign course lasting one week. Systemic infection or visceral involvement are rare, occurring mostly in neonates or immuno-deficient patients. *C. jejuni* can be responsible for Guillain-Barre Syndrome or hemolytic uremic syndrome. Macrolids, the most commonly used antibiotics, are rarely indicated.

**Oral administration of antibodies as prophylaxis and therapy in  
Campylobacter jejuni-infected chickens.**

Tsubokura K; Berndtson E; Bogstedt A; Kaijser B; Kim M; Ozeki M;  
Hammarstrom L

Department of Clinical Immunology, Huddinge Hospital, Sweden.

Clinical and experimental immunology (ENGLAND) Jun 1997, 108 (3)  
p451-5, ISSN 0009-9104 Journal Code: DD7

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

**Passive immunity** against gastrointestinal infections has recently been successfully applied as prophylaxis and therapy in patients in a variety of virally and bacterially induced infections. *Campylobacter jejuni* is frequently associated with acute diarrhoea in humans, and several species of animals have been shown to transmit the disease, although birds have been implicated as the main source of infection. We used bovine and chicken immunoglobulin preparations from the milk and eggs, respectively, of immunized animals for prophylactic and therapeutic treatment of chickens infected with *C. jejuni*. A marked prophylactic effect (a >99% decrease in the number of bacteria) was noted using either antibody preparation, whereas the therapeutic efficacy, i.e. when antibodies were given after the infection was established, was distinctly lower (80-95%) as judged by faecal bacterial counts. These observations may serve as a starting point for experiments aimed at elimination of the infection in an industrial or farm setting. It may also encourage future attempts to treat, prophylactically or therapeutically, patients with *Campylobacter*-induced diarrhoea.



**Influence of antibody treatment of Campylobacter jejuni on the dose required to colonize chicks.**

Stern NJ; Meinersmann RJ; Dickerson HW

Poultry Microbiological Safety Research Unit, Richard B. Russell Agricultural Research Center, USDA-Agricultural Research Service, Athens, Georgia 30613.

Avian diseases (UNITED STATES) Jul-Sep 1990, 34 (3) p595-601, ISSN 0005-2086 Journal Code: 9IY

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

This study was designed to clarify the role of antibodies in controlling chicken colonization by *Campylobacter jejuni*. Cecal colonization by *C. jejuni* was compared after the organism was exposed either to phosphate-buffered saline, normal rabbit serum, rabbit hyperimmune anti-*C. jejuni* serum, or anti-*C. jejuni* antibodies extracted from chicken bile. Antibodies from chicken bile were extracted by affinity absorption against outer-membrane proteins from the challenge organism. Sera were heated 1 hour at 56 C to destroy complement activity. Bacterial inoculum levels were enumerated after 1 hour exposure at 4 C to the various treatments. The heated sera and the bile antibodies were not bactericidal, and bacterial agglutination was not evident. Serial dilutions of the antibody-treated *C. jejuni* were given by gavage into 1-day-old chicks. Six days later, the ceca were removed from the chicks, and samples were cultured on *Campylobacter*-charcoal differential agar. The colonization dose-50% was increased by twofold to 160-fold when the organism was preincubated with hyperimmune antiserum or the bile antibodies as compared with preincubation with phosphate-buffered saline. We conclude that antibodies inhibit chicken cecal colonization by *C. jejuni*.

Use of an immunoglobulin M containing preparation for treatment of two hypogammaglobulinemic patients with persistent Campylobacter jejuni infection.

Borleffs JC; Schellekens JF; Brouwer E; Rozenberg-Arska M

Department of Internal Medicine, University Hospital Utrecht, The Netherlands.

European journal of clinical microbiology & infectious diseases (GERMANY)

Oct 1993, 12 (10) p772-5, ISSN 0934-9723 Journal Code: EM5

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

This report describes two hypogammaglobulinemic patients with persistent Campylobacter jejuni infections in spite of IgG substitution and antibiotic therapy. Since serum bactericidal activity (SBA) depends on IgM, these patients were each treated with six doses of an IgM-containing immunoglobulin preparation (Pentaglobin) at three-week intervals. During IgG therapy SBA was not seen in either patient. However, one hour following administration of the IgM preparation, SBA increased to 90%. Just before the next dose SBA was still at the 30-70% level. Both patients tolerated the therapy very well and there were no culture-confirmed relapses of Campylobacter jejuni infection. The IgM preparation may therefore be a useful alternative to conventional IgG in the treatment of hypogammaglobulinemic patients with persistent Campylobacter jejuni infection.

**Campylobacter jejuni bacteremia and Guillain-Barre syndrome in a renal transplant recipient**

Author(s): Maccario M (REPRINT) ; Tarantino A; NobileOrazio E; Ponticelli C  
Corporate Source: OSPED MAGGIORE, DIV NEPHROL & DIALYSIS, IRCCS, VIA  
COMMENDA 15/I-20122 MILAN//ITALY/ (REPRINT)

Journal: TRANSPLANT INTERNATIONAL, 1998, V11, N6 (NOV), P439-442

ISSN: 0934-0874 Publication date: 19981100

Publisher: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010

Language: English Document Type: ARTICLE

Geographic Location: ITALY

Subfile: CC CLIN--Current Contents, Clinical Medicine;

Journal Subject Category: SURGERY; TRANSPLANTATION

Abstract: In patients who have not undergone transplantation,

Guillain-Barre syndrome (GBS) is typically preceded by an acute infection often sustained by Campylobacter jejuni. Thus far, in renal transplant recipients, only eight cases of GBS have been reported. In seven patients GBS was attributed to cytomegalovirus infection and in the eighth patient to cyclosporin A neurotoxicity. We report here the case of a GBS in a renal transplant recipient following C.jejuni bacteremia. The infection quickly disappeared after erythromycin and methronidazole therapy. GBS progressively evolved into a paraparesis within week. After reaching a plateau phase, the clinical status improved and the patient was able to walk unassisted after 3 weeks. At his last check-up, 54 months later, the patient was doing well with a functioning graft and only minimal weakness of the lower limbs.

Descriptors--Author Keywords: **Guillain-Barre syndrome, Campylobacter jejuni, renal transplantation**

**Suppression of polyglycosides of Tripterygium wilfordii Hook on  
autoimmunity induced by Campylobacter jejuni.**

AUTHOR: Sun Bing; Ma Bao-Li; Xie Ya-Li

AUTHOR ADDRESS: Dep. Pharmacol., Sch. Pharm., Shanghai Med. Univ.,  
Shanghai 200032\*\*China

JOURNAL: Zhongguo Yaolixue Yu Dulixue Zazhi 7 (3):p190-192 1993

ISSN: 1000-3002

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: Chinese; Non-English

SUMMARY LANGUAGE: Chinese; English

ABSTRACT: Polyglycosides of Tripterygium wilfordii Hook (T-II, 20 mg cntdot  
kg-1 cntdot d-1 times 21 d, ig) treatment had a suppressive action on  
autoimmunity induced by Campylobacter jejuni infection. T-II inhibited  
the enhanced formation of PFC, anti-ds-DNA antibody and lymphocyte  
proliferation with and without concanavalin A in the infected mice, and  
rendered the increased ratio of L3T4+/Lyt2+ to normal. The results  
indicate that T-II can play an important role in treatment of autoimmune  
diseases by keeping the balance of the ratio of the L3T4+/Lyt2+.

**Surface array protein of *Campylobacter fetus*. Cloning and gene structure.**

**Blaser MJ ; Gotschlich EC**

Laboratory for Bacteriology and Immunology, Rockefeller University, New York, New York 10021.

Journal of biological chemistry (UNITED STATES) Aug 25 1990, 265 (24)

p14529-35, ISSN 0021-9258 Journal Code: HIV

Contract/Grant No.: AI 10615, AI, NIAID; AI 24145, AI, NIAID

Erratum in J Biol Chem 1990 Nov 5;265(31) 19372

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: INDEX MEDICUS

The high molecular mass (97-149 kDa ) surface array proteins (SAP) of ***Campylobacter fetus*** are critical to virulence. We created a bank of 160,000 random 1.0-6.5-kilobase (kb) chromosomal DNA fragments of *C. fetus* strain 84-32 (23D) using lambda gt11. Screening this bank in *Escherichia coli* Y1090 with **antibody** raised against purified SAP permitted isolation and purification of a clone with a 4.0-kb insert. Subcloning this insert in the *E. coli* vector, pUC9, permitted expression of a protein of approximately 100 kDa , not fused with beta-galactoside or inducible by isopropyl-beta-D-thiogalactopyranoside. Digestion with restriction endonucleases, and construction of deletion mutations indicated that the gene extended over 2.8 kb, proceeding toward the start of the beta-galactosidase gene. Taking advantage of a unique PstI site at 1.7 kb, we subcloned PstI-EcoRI fragments in both orientations into M13 vectors, then generated and sequenced 48 deletion mutants. In the 3974-base insert, an open reading frame, beginning at nucleotide 24 and terminating at 2825, was found to encode a 933-amino acid polypeptide having a calculated molecular mass of 96,758 daltons. The first 20 amino acids exactly match those determined from amino-terminal sequencing, indicating that this protein is secreted without a leader sequence. The deduced amino acid composition matches that of the purified SAP. We identified a ribosomal binding site 9 bases upstream, and a putative transcription terminator ( $\Delta G = -12.4$ ) 21 bases downstream. There is partial homology of primary and secondary structure with five other bacterial S-layer proteins.

Tags: Comparative Study; Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.

DIALOG(R) File 155:MEDLINE(R)

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10597838 20289567 PMID: 10836867

- Bickerstaff's brainstem encephalitis subsequent to Campylobacter jejuni enteritis.**

Yuki N; Odaka M; Hirata K

Journal of neurology, neurosurgery, and psychiatry (ENGLAND) May 2000, 68 (5) p680-1, ISSN 0022-3050 Journal Code: JBB

Languages: ENGLISH

Document type: Letter

Record type: Completed

Subfile: INDEX MEDICUS

Tags: Case Report; Human; Male; Support, Non-U.S. Gov't

Descriptors: \*Brain Stem--pathology--PA; \*Campylobacter Infections--complications--CO; \*Encephalitis--microbiology--MI; Adolescence; Campylobacter jejuni--isolation and purification--IP; Campylobacter jejuni--pathogenicity--PY; Encephalitis--etiology--ET; Encephalitis--therapy--TH; Immunization, Passive; Plasmapheresis

Record Date Created: 20000530

6/9/24 (Item 2 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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10470382 99423683 PMID: 10491405

**Monoclonal antibodies raised against Guillain-Barre syndrome-associated Campylobacter jejuni lipopolysaccharides react with neuronal gangliosides and paralyze muscle-nerve preparations.**

Goodyear CS; O'Hanlon GM; Plomp JJ; Wagner ER; Morrison I; Veitch J; Cochrane L; Bullens RW; Molenaar PC; Conner J; Willison HJ

University Department of Neurology, Southern General Hospital, Glasgow G51 4TF, Scotland.

Journal of clinical investigation (UNITED STATES) Sep 1999, 104 (6) p697-708, ISSN 0021-9738 Journal Code: HS7

Erratum in J Clin Invest 1999 Dec;104(12) 1771

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Subfile: AIM; INDEX MEDICUS

Guillain-Barre syndrome and its variant, Miller-Fisher syndrome, are acute, postinfectious, autoimmune neuropathies that frequently follow Campylobacter jejuni enteritis. The pathogenesis is believed to involve molecular mimicry between sialylated epitopes on C. jejuni LPSs and neural gangliosides. More than 90% of Miller-Fisher syndrome cases have serum anti-GQ1b and anti-GT1a ganglioside antibodies that may also react with other disialylated gangliosides including GD3 and GD1b. Structural studies on LPS from neuropathy-associated C. jejuni strains have revealed GT1a-like and GD3-like core oligosaccharides. To determine whether this structural mimicry results in pathogenic autoantibodies, we immunized mice with GT1a/GD3-like C. jejuni LPS and then cloned mAb's that reacted with both the immunizing LPS and GQ1b/GT1a/GD3 gangliosides. Immunohistology demonstrated antibody binding to ganglioside-rich sites including motor nerve terminals. In ex vivo electrophysiological studies of nerve terminal function, application of antibodies either ex vivo or in vivo via **passive immunization** induced massive quantal release of acetylcholine, followed by neurotransmission block. This effect was complement-dependent and associated with extensive deposits of IgM and C3c at nerve terminals. These data provide strong support for the molecular mimicry hypothesis as a mechanism for the induction of cross-reactive pathogenic anti-ganglioside/LPS antibodies in postinfectious neuropathies.

Tags: Animal; Female; Male; Support, Non-U.S. Gov't

Descriptors: \*Antibodies, Monoclonal--immunology--IM; \*Campylobacter jejuni--immunology--IM; \*Gangliosides--immunology--IM; \*Lipopolysaccharides--immunology--IM; \*Neuromuscular Junction--physiology--PH; \*Polyradiculoneuropathy--microbiology--MI; Complement 3--physiology--PH; Cross Reactions;

t.	Items	Description
S1	4006	E1-E50
S2	2454	E1-E31
S3	56853	R1-R30
S4	1	"GUILLAIN-BARRE SYNDROME, CAMPYLOBACTER JEJUNI,"

?t s4/9/1

*Spinal  
Suckness*

4/9/1 (Item 1 from file: 34)

DIALOG(R) File 34:SciSearch(R) Cited Ref Sci  
(c) 2001 Inst for Sci Info. All rts. reserv.

07291016 Genuine Article#: 147AF Number of References: 36

**Title: Campylobacter jejuni bacteremia and Guillain-Barre syndrome in a renal transplant recipient**

Author(s): Maccario M (REPRINT) ; Tarantino A; NobileOrazio E; Ponticelli C  
Corporate Source: OSPED MAGGIORE, DIV NEPHROL & DIALYSIS, IRCCS, VIA  
COMMENDA 15/I-20122 MILAN//ITALY/ (REPRINT)

Journal: TRANSPLANT INTERNATIONAL, 1998, V11, N6 (NOV), P439-442  
ISSN: 0934-0874 Publication date: 19981100

Publisher: SPRINGER VERLAG, 175 FIFTH AVE, NEW YORK, NY 10010  
Language: English Document Type: ARTICLE

Geographic Location: ITALY

Subfile: CC CLIN--Current Contents, Clinical Medicine;

Journal Subject Category: SURGERY; TRANSPLANTATION

**Abstract:** In patients who have not undergone transplantation, Guillain-Barre syndrome (GBS) is typically preceded by an acute infection often sustained by Campylobacter jejuni. Thus far, in renal transplant recipients, only eight cases of GBS have been reported. In seven patients GBS was attributed to cytomegalovirus infection and in the eighth patient to cyclosporin A neurotoxicity. We report here the case of a GBS in a renal transplant recipient following C.jejuni bacteremia. The infection quickly disappeared after erythromycin and methronidazole therapy. GBS progressively evolved into a paraparesis within week. After reaching a plateau phase, the clinical status improved and the patient was able to walk unassisted after 3 weeks. At his last check-up, 54 months later, the patient was doing well with a functioning graft and only minimal weakness of the lower limbs.

**Descriptors--Author Keywords:** Guillain-Barre syndrome, Campylobacter jejuni, renal transplantation

**Identifiers--Keyword Plus(R):** BONE-MARROW TRANSPLANTATION; CYTOMEGALOVIRUS-INFECTION; ANTI-GM1 ANTIBODIES; POLYNEUROPATHY; ASSOCIATION; NEUROPATHY; ENTERITIS; PATIENT; VIRUS

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